

KANSAS ARMY NATIONAL GUARD



Project Manual KSARNG On-Call Construction

for

**Concordia RC Renovation
Concordia Readiness Center
Concordia, Kansas**

CFMO Project # 20A781

August 2024



**Construction and Facilities
Management Office
Topeka, Kansas
(785) 274-1131**

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**Kansas National Guard Armory
Concordia RC Renovation
KSARNG #20A781
OFPM BLDG. #03400-00071 / KSARNG BLDG. #100
Concordia, Kansas
August 2024**

DESIGN TEAM

Architect:

Jones Gillam Renz Architects
Charles A. Renz, P.A.
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730 N. Ninth
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TABLE OF CONTENTS

NO. of PAGES

Section 00 0200 Instructions to Bidders 6
 Section 00 4100 Bid Form..... 6
 Section 00 6000 Project Forms..... 1
 Form of Performance Bond 1
 Form of Public Works Bond 1
 Section 00 7200 General and Supplementary Conditions of the Contract 1

DIVISION 01 – GENERAL REQUIREMENTS

Section 01 1000 Summary of Work 1
 Section 01 2300 Alternates 1
 Section 01 3000 Administrative Requirements 4
 Section 01 4000 Quality Requirements..... 6
 Section 01 5000 Temporary Facilities and Controls 2
 Section 01 6000 Product Requirements 5
 Section 01 7000 Execution Requirements 9
 Section 01 7329 Cutting and Patching..... 2
 Section 01 7419 Construction and Demolition Materials Recycling Requirements 4
 Attachment A – Contractor’s Construction Waste and Recycling Plan 2
 Attachment B – Contractor’s Reuse, Recycling and Expense Report..... 2
 Section 01 7800 Closeout Submittals 4
 Section 01 9998 Environmental Management Systems 2

DIVISION 02 – EXISTING CONDITIONS

Section 02 0700 Selective Demolition..... 1

DIVISION 03 THROUGH 06 - NOT USED

DIVISION 07 – THERMAL AND MOSITURE PROTECTION

Section 07 9200 Joint Sealants..... 4

DIVISION 08 – DOORS AND WINDOWS

Section 08 8700 Window Film..... 4

DIVISION 09 – FINISHES

Section 09 6519 Resilient Flooring 2
 Section 09 9000 Painting 3

DIVISION 10 – SPECIALTIES

Section 10 1400 Signs 3
 Section 10 2213 Wire Mesh Partitions 2

DIVISION 11 THROUGH 49 - NOT USED

END OF TABLE OF CONTENTS

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SECTION 000200

INSTRUCTIONS TO BIDDERS

1.1 PROJECT AND BID RECEIPT

A. Project Name and Location:

Kansas Army National Guard
Concordia RC Renovation
2115 Blosser Drive
Concordia, KS

B. Bid Receipt, Day and Time: Bids shall be submitted to The Adjutant General's Department, Construction and Facility Management Office, Attention: Chase Meyer, 2800 SW Topeka Blvd., Topeka, KS 66611 no later than September 19, 2024 at 2:00 PM local time.

1.2 PRE-BID MEETING AND SITE VISITS

A. Pre-Bid Meeting: A Pre-Bid Conference will not be held at this time. It shall be the responsibility of the bidder to review the site and field conditions under which the work is to be performed prior to submittal of the bid price.

B. Bidders Access to Site: Access to the site is available if prior arrangements are made by Chase Meyer at (785) 646-0712.

1.3 METHODS FOR BID AWARDING

A. Bid Form: Bids must be submitted on the "Bid Form" issued with the Project Manual.

B. Contracts: Award of Contract will be made in a single contract for the Project as a whole to include general construction, mechanical construction, plumbing construction, and electrical construction.

C. Subcontractor Listing: Kansas Statute KSA 75-3741 as amended, requires Bidders to list and identify the "Major Subcontractor" for mechanical construction, plumbing construction (if separate from mechanical), and electrical construction included as a part of the proposal, when a single contract for the "Project as a Whole" is to be awarded.

1.4 DEFINITIONS

A. General: Definitions set forth in the "General Conditions of the Contract, State of Kansas The Adjutant General's Department (8-1-95)", are applicable to these Instructions to Bidders.

B. Bidding Documents: Bidding Documents include Invitation to Bid, Instructions to Bidders, Bid Form, proposed Contract Documents including Drawings and Specifications, General Conditions of the Contract, sample forms, and Addenda (if any) issued prior to receipt of Bids.

- C. Addenda:** Addenda are written or graphic instruments issued prior to the execution of the Contract which modify or interpret the Bidding Documents, including the Drawings and Specifications, by additions, deletions, clarifications or corrections. Addenda will become part of the Contract Documents when the Contract is executed.

1.5 EXAMINATION OF DOCUMENTS AND SITE

- A.** Before submitting a Bid, Bidder shall carefully examine the Bidding Documents pertaining to the Work and shall visit the location of the Work to verify conditions under which the Work will be performed. Submission of a Bid will be considered presumptive evidence that the Bidder is conversant with local facilities and difficulties, the requirements of the Bidding Documents and of pertinent State and/or local codes, state of labor and material markets, and has made due allowances in his Bid for all contingencies.
- B.** Include in Bid all costs for labor, materials, equipment, fees, taxes, insurance and other contingencies, with overhead and profit necessary to produce a complete installation of all portions of the Work of the Project covered by the Bid, without further cost to the Owner.
- C.** Bidder shall carefully examine the Bidding Documents and, not later than 7 days prior to the date for receipt of Bids, shall make written request to the Owner for interpretation or correction of any ambiguity, inconsistency or error therein which he may discover. Only those interpretations or corrections issued by written Addendum are valid and binding. Verbal interpretations or corrections on the part of the Owner or Division of Purchases are invalid.
- D.** Before submitting a Bid, the Contractor and the Contractor's subcontractors and material suppliers shall examine the Bidding Documents and if a material or its installation is indicated or specified in a manner not approved by the material manufacturer, notify the Owner.

1.6 ADDENDA

- A.** Prior to the receipt of Bids, Addenda will be mailed, delivered, or issued by use of facsimile machine.
- B.** Bidder shall acknowledge receipt of Addenda on the Bid Form in the space provided for such acknowledgement.

1.7 BID PREPARATION

- A.** Bidders shall submit Bids on the exact Bid Form furnished by the Owner. Fill in all blanks on the Bid Form clearly with typewriter or ink. Erasures or other changes in a Bid must be explained or noted over the signature of the Bidder. Bids shall contain no alterations nor recapitulation of the Work. Failure to quote a price for any portion of the Work so requested in the Bid Form may be cause for rejection of a Bid.

1.8 BIDDER'S REPRESENTATION

- A.** The Bidder, by submitting his Bid, represents that:
- 1.** The Bidder has read and understands the Bidding Documents and his Bid is made in accordance therewith.
 - 2.** The Bidder has personally visited the site and has familiarized himself with the local conditions under which the Work is to be performed.
 - 3.** The Bid is based upon the materials, systems and equipment described in the Bidding Documents without exception.
 - 4.** The Bidder has not entered into collusion with other Bidders.
 - 5.** The Bidder does not have an interest in more than one Bid or submitted more than one Bid under different names.

1.9 SIGNING THE BID FORM

- A.** The Bidder's signature shall be in longhand by a principal duly authorized to sign contracts; the signature accompanied by the corporate seal impression if Bid is by a corporation. The Bid Form shall bear the exact post office address of the Bidder. Persons signing as an agent of the Bidder shall submit acceptable evidence of their authority.
- B.** Bids not signed by the individual making them shall have attached thereto a Power of Attorney evidencing authority to sign the Bid in the name of the person for whom it is signed.
- C.** Bids signed for co-partnerships shall be signed by all of the co-partners, or by an attorney-in-fact. If signed by an attorney-in-fact, there shall be attached to the Bid a Power of Attorney evidencing authority to sign the Bid.
- D.** Bids signed for a corporation shall have the correct corporate name signed in handwriting or in typewriting and the signature of the President or other authorized Officer of the corporation shall be manually written below the written corporate name. If such a Bid is manually signed by an Officer other than the President of the Corporation, a Resolution of the Board of Directors evidencing the authority of such official to sign the Bid shall be attached.
- E.** For Bids signed for any other legal entity, the authority of the person signing for such legal entity shall be attached to the Bid.

1.10 SUBMISSION OF BIDS

- A. The Bid Form and any other documents required to be submitted with the Bid shall be enclosed in a sealed opaque envelope. The envelope shall be addressed as follows.
 - “BID ENCLOSED
Concordia RC Renovation – CFMO - #20A781
Concordia, KS”
- B. If the Bid is sent by mail the sealed envelope shall be enclosed in a separate mailing envelope with the notation “SEPARATE BID ENVELOPE ENCLOSED” on the face thereof.
- C. Bids shall be deposited at the designated location no later than the time and date specified for receipt of Bids, or any extension thereof made by Addendum. Bids received after the time and date for receipt of Bids will be returned unopened.
- D. Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids.
- E. Oral, telephonic, telegraphic or facsimile Bids are invalid and will not receive consideration.

1.11 MODIFICATION OR WITHDRAWAL OF BID

- A. A Bid may not be modified, withdrawn or canceled by the Bidder for a period of 60 days following the time and date designated for the receipt of Bids, and Bidder so agrees in submitting his Bid.
- B. Prior to the time and date designated for receipt of Bids, Bids submitted early may be modified or withdrawn only by notice to the party receiving Bids at the place and prior to the time designated for receipt of Bids.
- C. Notice of modification shall be in writing over the signature of the Bidder or by telegram; if by telegram, written confirmation over the signature of Bidder shall have been mailed postmarked on or before the date and time set for receipt of Bids; it shall be so worded as not to reveal the amount of the original Bid.

1.12 REJECTION OF BIDS

- A. The Owner shall have the right to reject any or all Bids, and in particular to reject a Bid not accompanied by data required by the Bidding Documents or a Bid in any way incomplete or irregular.

1.13 AWARD OF CONTRACT

- A. A contract will be awarded to the responsible bidder meeting all requirements, conditions and specifications imposed in the Bidding Documents, but the Director, Division of Purchases, reserves the right to accept any or all bids, reject any or all bids for sufficient reason(s), and to waive technicalities if in the best interest of the State of Kansas.

- B.** At the time of award, the successful bidder will be provided with the necessary Contract forms, Performance Bond, Public Works Bond or a Certificate of Deposit confirmation, along with the Appointment of a Process Agent Form (when applicable), accompanied by the instructions for execution of each, and will require submission of proof of certain insurance coverages.
- C.** The executed Contract, bonds (or Certificate of Deposit) and insurance documents, as well as a receipt for filing the Public Works Bond and the Appointment of Process Agent with the Clerk of the District Court in the county where the work is to be performed, shall be returned to and received by the Division of Purchases within 15 working days.
- D.** Failure on the part of the Contractor to provide the executed documents within 15 working days may result in withdrawing of the award; reawarding to the next lowest responsible bidder, or rebidding of the work; and forfeiture of all or part of the Bid Security.

1.14 PROOF OF REQUIRED INSURANCE

- A.** Furnish executed Certificates of Insurance covering required insurance coverage.

1.15 PURCHASE ORDER VOUCHER (P.O.V.) AND NOTICE TO PROCEED

- A.** A written Purchase Order Voucher issued from the Division of Purchases and a written Notice to Proceed issued by the Adjutant General's Department will not be issued to Contractor until the Contract, Bonds, and Insurance Documents have been executed by all parties and accepted by the Division of Purchases.
- B.** Prior to the issuance of the Notice to Proceed, the State of Kansas will not be liable for any expenses relating to the Bid or Contract, or any expenses related to their preparation.

1.16 CHANGE ORDERS

- A.** Changes to the initial Contract will be made by issuance of Change Orders in accordance with the General Conditions of the Contract.

1.17 COMPLETION TIME AND LIQUIDATED DAMAGES

- A.** Bidder acknowledges that he will substantially complete the Work by the time specified in the Bid Form, or be subject to specified liquidated damages.

END OF INSTRUCTIONS TO BIDDERS

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SECTION 004100
BID FORM

1.1 THE PROJECT

A. Project Name and Location:

Concordia RC Renovation, CFMO #20A781.
Kansas Army National Guard
Concordia, Kansas

1.2 BID SUBMISSION BY

A. This bid proposal is being submitted by:

Name of Person, Firm or Corporation

1.3 BID ITEMS

- A.** Bids should be for the entire work as designated in the Description of Bid Items, and all blank spaces shall be filled in; failure to bid any item will disqualify the entire bid. Each bidder shall use this form as furnished or an exact duplicate thereof.
- B.** Measurements shown (i.e., SF, LF, etc.) are approximate and are not to be considered for use as unit bidding. Bid amounts are for the complete scope as indicated in the plans and specifications.
- C.** Change to cost breakdown for work in connection with the construction of the main facilities and their appurtenances will be made on the basis of the lump sum bid amount for each item described in Description of Bid Items.
- D.** All Bid Items shall include overhead and profit.
- E. Bid Items:**
 - 1.** **“Base Bid A”** – Installation of blast film on all exterior windows/glass. Painting of all exterior hollow metal doors/frames. Replacement of sills and gasketing of all exterior overhead doors. Paint existing Maintenance Bay ceiling/structure. Clean and seal existing Maintenance Bay concrete floor slab. Remove existing and install new wire mesh storage caging in Maintenance Bay. Replace carpet and rubber base in Conference Room with new. Provide \$5,000 allowance for roof repairs. Install new interior room signage. All per the attached drawings and specifications including all labor, materials, and/or equipment.

“Base Bid A” \$ _____

“Base Bid A” Itemized Costs; Must total Base Bid:

- a. Materials _____ LS \$ _____
 - b. Labor _____ LS \$ _____
 - c. Equipment _____ LS \$ _____
- Total of Items a., b., and c.** (“Base Bid A”) \$ _____

F. Alternate Bid Items:

- 1. **“Alternate Bid 1”** – Replace carpet and rubber base in three Offices. Paint sheetrock walls in three Offices. All per the attached drawings and specifications including all labor, materials, and/or equipment.

“Alternate Bid 1” \$ _____

“Alternate Bid 1” Itemized Costs; Must total Alternate Bid 1:

- a. Materials _____ LS \$ _____
 - b. Labor _____ LS \$ _____
 - c. Equipment _____ LS \$ _____
- Total of Items a., b., and c.** (“Alternate Bid 1”) \$ _____

1.4 DESCRIPTION OF BID ITEMS

- A. **“Base Bid and Alternate Bid”** All work in connection with renovation including all labor, materials, equipment, profit and overhead required to obtain substantial completion for the extent of work outlined in this project manual. Work installed under the “Base Bid” shall be substantially completed within Owner’s specified **90 calendar day** time frame based upon the Owner designed start date as outlined in the Notice to Proceed letter.

1.5 DESCRIPTION OF ALTERNATE ITEMS

- A. Descriptions of Alternates may be referenced in Section 012300.

1.6 BID ITEMS ITEMIZED COST

- A. **General:** Provide a three item breakdown of costs included in the “Base Bid”. These cost figures shall be subject for inclusion in change orders concerning this project.
- B. **Item a. Material:** All costs in connection with the materials utilized in completing the work, either directly installed or indirectly used, including profit and overhead.

The cost associated with this Work makes up one (1) line item.

- C. Item b. Labor:** All costs in connection with the labor required to complete the installation including profit and overhead. The cost associated with this Work makes up one (1) line item.
- D. Item c. Equipment:** All material handling/installation equipment used to complete the installation including but not limited to bulldozers, graders, front end loaders, trucks, etc. This includes profit and overhead. The cost associated with this Work makes up one (1) line item.

1.7 SUBSTANTIAL COMPLETION OF THE WORK

- A.** The undersigned will have the total work of the project to a point of substantial completion, ready for the Owner’s final inspection and the Owner’s acceptance in the designated calendar days or less, following receipt of a written “Notice to Proceed”.

1.8 ADDENDA

- A.** The Bidder acknowledges receipt of the following Addenda:

None (____) #1 (____) #2 (____) #3 (____) #4 (____) #5 (____)

1.9 REVIEW OF SITE CONDITIONS

- A.** The Bidder(s) acknowledges that a formal pre-bid conference was not held but has reviewed the site and field conditions under which the work shall be performed. The bid prices stated herein include all costs associated with performing the work under these conditions.

1.10 FEDERAL TAX

- A.** The Bidder has included the cost for the Federal Excise Tax in all quoted prices, to cover the cost of said tax on all items of construction, equipment and material subject to the same.

1.11 STATE SALES TAX DETERMINATION

- A.** Article 8 of the General Conditions shall be supplemented as follows:
 - 1.** This project has been determined by the Kansas Department of Revenue to be subject to Kansas sales tax. The cost of said tax must be included in all bid and contract prices. Sales tax includes all applicable state, county and city sales tax.
- B.** A general contractor or other contractor with a contract directly with the State of Kansas or one of its agencies shall pay tax as follows:
 - 1. Labor:** No tax will be assessed since the labor is purchased directly by the

State or one of its agencies.

- 2. Materials:** Taxes will be assessed on material purchased for the project.
- C.** A subcontractor on this project shall pay tax as follows:
- 1. Labor:** Taxes will be assessed because this labor is not being purchased directly by the State or one of its agencies.
 - 2. Materials:** Taxes will be assessed on materials purchased for the project.
- D.** The amount of tax to be assessed will vary depending upon whether the project calls for original or other than original construction. The contractor will be responsible for determining and including the correct amount of state, county and city sales tax applicable to this project. Questions should be addressed to the Kansas Department of Revenue, Division of Taxation, Taxpayer Assistance Bureau, 913-296-0222.
- E.** A general contractor or other contractor with a contract directly with the State of Kansas shall obtain copies of the Kansas Retail Sales Tax Registration Certificates from all of their subcontractors on this project and have them available at the job site upon request.

1.12 AGREEMENTS FOR BIDDING

- A. The Bidder agrees to the following terms and conditions for bidding:**
- 1.** A single Contract to include total work of the project will be awarded to the responsible bidder offering the lowest price and meeting all the requirements for bidding, and those of the Construction Documents. The successful low bid will be determined by the total Base Bid plus the total of any Alternates/Additives that are accepted by the Owner after all bids are opened.
 - 2.** Failure to acknowledge receipt of any Addendum issued may be cause for rejecting a bid.
 - 3.** An incomplete bid, or information not solicited included on the Form of Bid, may be a cause for rejecting a bid.
 - 4.** A bid is considered incomplete and non-responsible which fails to quote a price for any Alternate/Additive Bid, or other bid, identified and described on the Form of Bid, or elsewhere in the Construction Documents.
 - 5.** The Director of Purchases may reject any or all bids and waive technicalities, should such action be deemed in the best interest of the Owner.
 - 6.** The Owner may elect to accept or reject any or all Alternate/Additive Bids, or other bids, at the time when authorizing an Award of Contract.
 - 7.** Liquidated damages are part of the bid and Construction Documents.
 - 8.** The work of the project is subject to payment of State and locally (city/county)

levied Sales Tax.

- 9. The bid, as submitted, remains valid for thirty (30) calendar days following the Director of Purchases receipt, publicly opening and reading.
- 10. The successful low bid will be determined by the total Base Bid plus the total of any Alternates/Additives that are accepted by the Owner after all bids are opened.

1.13 SUBCONTRACTOR LISTINGS

- A. **Demolition Contractor:** (If work is to be performed by Bidders own forces state "Own Forces" below under name of firm)

Name of Firm

Mailing Address

1.14 DECLARATION

- A. The undersigned has carefully reviewed all the Bid and Construction Documents, has examined the location for the work, has satisfied himself as to all quantities, conditions, provisions and sources of supply, understands that, in signing and submitting the Bid Form along with an approved bid guarantee, all right is waived to plead any misunderstanding and agrees to be bound by all the terms, conditions, provisions and statements made herein.
- B. **SIGNATURE (Including corporate seal, when applicable):**

Dated this _____ day of _____, 2024.

Name of Person, Firm or Corporation (affix corporate seal)

Mailing Address

by: _____

Signature of Owner or Authority

Name and Title of Authority

Business Telephone Number

Federal I.D. Number

END OF BID FORM

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SECTION 006000 PROJECT FORMS

PART 1 - GENERAL

1.1 CONSTRUCTION CONTRACT

- A. Requirements:** Upon award of contract to the successful bidder the successful bidder will be request to enter into a construction contract and the terms and language as stated therein. A copy of the contract is bound hereinafter.

1.2 BONDS

- A. Requirements:** Prior to Owner issuance of a Notice to Proceed the contractor will provide to the Owner a fully executed Performance Bond and Public Works Bond for the specific work defined herein. A copy of the Bond forms are bound hereinafter.

END OF SECTION

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PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

That we, _____ of _____ as Principal, hereinafter called Contractor, and _____ Company, a corporation organized under the laws of the State of _____, with its home office in the city and state of _____, as Surety and hereinafter referred to as Surety, are held and firmly bound unto the State of Kansas, as Obligee, hereinafter called the State, in the sum of (**\$** _____) dollars for the payment of which sum we as Contractor and Surety bind ourselves and our legal representatives and successors, jointly and severally, by this instrument.

WHEREAS, Contractor has by written agreement dated, _____ entered into a contract with the State of Kansas for:

in accordance with plans and specifications set forth in the State of Kansas, project # _____ and RFQ _____ and which contract is by referenced made a part hereof, and is hereinafter referred to as the contract.

IT IS THEREFORE the condition of the above obligation that whenever Contractor shall be in default and is declared by the State to be in default under the contract, the State having performed the State's obligations under the Contract, the Surety will promptly remedy the default by completion of the Contract in accordance with the terms and conditions of the Contract.

If Surety does not promptly remedy the default, Surety shall be liable to the State for funds sufficient to pay the cost of completion less the balance of the contract price. Balance of contract price shall mean total amount payable by State to Contractor under the contract, less amounts properly paid to Contractor by State. If Contractor faithfully, promptly and accurately executes the Contract and complies with all the conditions thereof, then this obligation shall be null and void; otherwise, it shall remain in full force and effect.

IN WITNESS WHEREOF, we have hereunto set our hands this _____ day of _____ 2009.

Principal _____

By _____
(Attorney-in-Fact)

By _____
(Title)

Surety _____

Address _____

Address _____

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**CONTRACTOR'S PUBLIC WORKS BOND TO THE STATE
(PURSUANT to K.S.A. 60-1111 as amended)**

KNOW ALL PERSONS BY THESE PRESENTS: _____

as principal, and _____

as Surety, and held and firmly bound unto the STATE OF KANSAS, in the sum of:

(\$ _____ .00)

lawful money of the United States, will and truly to be paid, to which payment we here bind ourselves, our heirs, executors, administrators, successors or assigns, jointly and severally, firmly by these presents.

The condition of the above obligation is such that, whereas, the said _____ hereinafter called the contractor, has on the _____ day of _____, **2024** entered into a contractor with the State of Kansas,

in accordance with plans and specifications of Project No. _____ On file in the Department of Administration, Division of Architectural Services

AND, NOW, THEREFORE, if the said contractor and all sub-contractors, if any, of said contractor shall pay all indebtedness incurred for labor furnished, materials, equipment or supplies used or consumed in connection with, or in or about the construction of said public building or making said public improvements, then the above obligation shall be void, otherwise it shall remain in full force and effect.

IN WITNESS WHEREOF, We have hereunto set our hands this _____ day of _____, 2024.

Principal _____

By _____

Surety _____

By _____

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SECTION 007200
GENERAL AND SUPPLEMENTAL CONDITIONS OF THE CONTRACT

PART 1 - GENERAL

1.1 GENERAL CONDITIONS

A. Requirements: Per the requirements set forth in the contract award for on-call construction contractors as bound hereinafter all provisions of the documents, agreements, and specifications shall apply to this work. This includes but is not limited to:

1. Terms and Conditions for State of Kansas - Event ID EVT0009262
2. Special Conditions for State of Kansas - Event ID EVT0009262
3. Statement of Work for State of Kansas - Event ID EVT0009262
4. Contractual Provisions Attachment of Work for State of Kansas - Event ID EVT0009262

END OF SECTION

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SECTION 011000 SUMMARY OF WORK

PART 1 – GENERAL

1.1 PROJECT

- A.** Project Name: Concordia RC Renovation
- B.** Owner's Name: Kansas Army National Guard (KSARNG) – Department of the Adjutant General
- C.** Project Scope: The Project Scope is comprised of: Installation of blast film on all exterior windows/glass. Painting of all exterior hollow metal doors/frames. Replacement of sills and gasketing of all exterior overhead doors. Paint existing Maintenance Bay ceiling/structure. Clean and seal existing Maintenance Bay concrete floor slab. Remove existing and install new wire mesh storage caging in Maintenance Bay. Replace carpet and rubber base in Conference Room with new. Provide \$5,000 allowance for roof repairs. Install new interior room signage. Alternate Bid #1 to: Replace carpet and rubber base in three Offices. Paint sheetrock walls in three Offices.

1.2 CONTRACT DESCRIPTION

- A. Contract Type:** A competitively bid single prime contract based on the Cost of the Work plus a fee.

1.3 WORK BY OWNER

- A.** Items noted NIC (Not in Contract) will be supplied and installed by Owner before Substantial Completion.

1.4 OWNER OCCUPANCY

- A.** Owner intends to continuously occupy the Project.
- B.** Schedule and Execute the Work so as to not disrupt the normal usage and activity of the facility and its occupants

1.5 CONTRACTOR USE OF SITE AND PREMISES

- A.** Construction Operations: Limited to the Owner's Property
- B.** Provide access to and from site as required by law and by Owner:
 - 1. Do not obstruct roadways, sidewalks, or other public ways without permit

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

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SECTION 012300 – ALTERNATE BIDS

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

- A. Work contemplated under various proposed Alternate Bids shall include all labor, materials, equipment and services necessary for, or incidental to, completion of all Work under each item.
- B. Furnish separate Bids for each Alternate Bid in the space provided on the Proposal Form stating the amount to ADD to the Base Bid in the event of acceptance.
- C. Each Alternate Bid proposed shall include all ultimate costs for all omissions, additions, substitutions and adjustments made by all trades and work affected.

1.2 ALTERNATE BIDS

- A. Alternates shall be as listed below:

Alternate No. 1: Replace carpet and rubber base in three Offices. Paint sheetrock walls in three Offices.

Alternate No. 2: If described by Addendum.

Alternate No. 3: If described by Addendum.

END OF SECTION 012300

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SECTION 013000 ADMINISTRATIVE REQUIREMENTS

PART 1 – GENERAL

1.1 SECTION INCLUDES

- A. Preconstruction meeting.
- B. Progress meetings.
- C. Construction progress schedule.
- D. Progress photographs.
- E. Submittals for review, information, and project closeout.
- F. Number of copies of submittals.
- G. Submittal procedures.

1.2 RELATED SECTIONS

- A. Section 017000 - Execution Requirements: Additional coordination requirements.
- B. Section 017800 - Closeout Submittals: Project record documents.

1.3 WORK BY OWNER

- A. Items noted NIC (Not in Contract) will be supplied and installed by Owner before Substantial Completion.

1.4 OWNER OCCUPANCY

- A. Owner intends to continuously occupy the Project.
- B. Schedule and Execute the Work so as to not disrupt the normal usage and activity of the facility and its occupants

1.5 CONTRACTOR USE OF SITE AND PREMISES

- A. Construction Operations: Limited to the Owner's Property
- B. Provide access to and from site as required by law and by Owner:
 - 1. Do not obstruct roadways, sidewalks, or other public ways without permit

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 CONTRACTOR USE OF SITE AND PREMISES

- A.** Owner intends to continuously occupy the Project
- B.** If preliminary schedule requires revision after review, submit revised schedule within 5 days.
- C.** Within 7 days after review of preliminary schedule, submit draft of proposed complete schedule for review.
 - 1.** Include written certification that major contractors have reviewed and accepted proposed schedule.
- D.** Within 10 days after joint review, submit complete schedule.
- E.** Submit updated schedule with each Application for Payment.

3.2 PROGRESS PHOTOGRAPHS

- A.** Provide photographs of site and construction throughout progress of Work produced by an experienced photographer, acceptable to the Owner.
- B.** Take photographs on date for each application for a payment and at major changes in the phase of work, for example:
 - 1.** Site clearing.
 - 2.** Excavations.
 - 3.** Foundations.
 - 4.** Structural framing.
 - 5.** Enclosure of building.
 - 6.** Final completion.
- C.** Take photographs as evidence of existing project conditions as follows:
 - 1.** Exterior views: views of each elevation as construction progresses.
- D.** Views:
 - 1.** Provide non-aerial photographs from four views at each specified time, until Date of Substantial Completion.
 - 2.** Consult with the Owner for instructions on views required.
 - 3.** Provide factual presentation.
 - 4.** Provide correct exposure and focus, high resolution and sharpness, maximum depth of field, and minimum distortion.
- E.** Deliver electronic and physical copies and prints with each Application for Payment with transmittal letter specified in this Section.

3.3 SUBMITTALS FOR REVIEW

- A. Provide a submittal schedule to the Owner within 7 days of established notice to proceed. See appendix for a list of required submittals.
- B. When the following are specified in individual sections, submit them for review:
 - 1. Product data.
 - 2. Shop drawings.
 - 3. Samples for selection.
 - 4. Samples for verification.
- C. Submit to Owner for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.
- D. Samples will be reviewed only for aesthetic, color, or finish selection.
- E. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 01 78 00 - CLOSEOUT SUBMITTALS.

3.4 SUBMITTALS FOR INFORMATION

- A. When the following are specified in individual sections, submit them for information:
 - 1. Design data.
 - 2. Certificates.
 - 3. Test reports.
 - 4. Inspection reports.
 - 5. Manufacturer's instructions.
 - 6. Manufacturer's field reports.
 - 7. Other types indicated.
- B. Submit for Owner. No action will be taken.

3.5 SUBMITTALS FOR PROJECT CLOSEOUT

- A. When the following are specified in individual sections, submit them at project closeout:
 - 1. Project record documents.
 - 2. Operation and maintenance data. **Three 3-ring binder hard copies and jump drives.**
 - 3. Warranties.
 - 4. Bonds.
 - 5. Other types as indicated.

3.6 SHOP DRAWING SUBMITTALS

- A. Documents for Shop Drawing Review shall be in electronic pdf format.

3.7 SUBMITTAL PROCEDURES

- A. Transmit each submittal with contractors transmittal form.
- B. Sequentially number the transmittal form. Revise submittals with original number and a sequential alphabetic suffix.
- C. Identify Project, Contractor, Subcontractor or supplier; pertinent drawing and detail number, and specification section number, as appropriate on each copy.
- D. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with the requirements of the Work and Contract Documents.
- E. Deliver submittals to the Owner at business address.
- F. Schedule submittals to expedite the Project, and coordinate submission of related items.
- G. For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.
 - 1. Allow additional time for submittals which require review by multiple consultants.
- H. Identify variations from Contract Documents and Product or system limitations which may be detrimental to successful performance of the completed Work.
- J. When revised for resubmission, identify all changes made since previous submission.
- K. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.
- L. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.

END OF SECTION

SECTION 014000 QUALITY REQUIREMENTS

PART 1 – GENERAL

1.1 SECTION INCLUDES

- A.** References and standards.
- B.** Quality assurance submittals.
- C.** Mock-ups.
- D.** Control of installation.
- E.** Tolerances.
- F.** Testing and inspection services.
- G.** Manufacturers' field services.

1.2 RELATED SECTIONS

- A.** Section 01 30 00 - Administrative Requirements: Submittal procedures.
- B.** Section 01 60 00 - Product Requirements: Requirements for material and product quality.

1.3 REFERENCES

- A.** A. ASTM C 1021 - Standard Practice for Laboratories Engaged in Testing of Building Sealants; 2001.
- B.** B. ASTM C 1077 - Standard Practice for Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation; 2005.
- C.** C. ASTM C 1093 - Standard Practice for Accreditation of Testing Agencies for Unit Masonry; 1995 (Reapproved 2001).
- D.** D. ASTM D 3740 - Standard Practice for Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction; 2004a.
- E.** E. ASTM E 329 - Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction; 2005.
- F.** F. ASTM E 543 - Standard Practice for Agencies Performing Nondestructive Testing; 2004.

1.4 SUBMITTALS

- A. Testing Agency Qualifications:**
 - 1. Prior to start of Work, submit agency name, address, and telephone number, and names of full time registered Engineer and responsible officer.
 - 2. Submit copy of report of laboratory facilities inspection made by NIST Construction Materials Reference Laboratory during most recent inspection, with memorandum of remedies of any deficiencies reported by the inspection.
- B. Design Data:** Submit for the Owner, for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.
- C. Test Reports:** After each test/inspection, promptly submit two copies of report to Owner and to Contractor.
 - 1. Include:
 - a. Date issued.
 - b. Project title and number.
 - c. Name of inspector.
 - d. Date and time of sampling or inspection.
 - e. Identification of product and specifications section.
 - f. Location in the Project.
 - g. Type of test/inspection.
 - h. Date of test/inspection.
 - i. Results of test/inspection.
 - j. Conformance with Contract Documents.
 - k. When requested by Owner, provide interpretation of results.
 - 2. Test reports are submitted for the Owner, for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.
- D. Certificates:** When specified in individual specification sections, submit certification by the manufacturer and Contractor or installation/application subcontractor to Owner, in quantities specified for Product Data.
 - 1. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
 - 2. Certificates may be recent or previous test results on material or product, but must be acceptable to Owner.
- E. Manufacturer's Field Reports:** Submit reports for Owner.
 - 1. Submit for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.

1.5 REFERENCES AND STANDARDS

- A. For products and workmanship specified by reference to a document or documents not included in the Project Manual, also referred to as reference standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard of date of issue current on date of Contract Documents, except where a specific date is established by applicable code.
- C. Should specified reference standards conflict with Contract Documents, request clarification from Owner before proceeding.
- D. Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of the Owner shall be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.6 TESTING AND INSPECTION AGENCIES

- A. Contractor will employ and pay for services of an independent testing agency to perform specified testing.
- B. Employment of agency in no way relieves Contractor of obligation to perform Work in accordance with requirements of Contract Documents.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Owner before proceeding.
- D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Have Work performed by persons qualified to produce required and specified quality.
- F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.

3.2 MOCK-UPS

- A.** Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes.
- B.** Accepted mock-ups shall be a comparison standard for the remaining Work.
- C.** Where mock-up has been accepted by Owner and is specified in product specification sections to be removed, remove mock-up and clear area when directed to do so.

3.3 TOLERANCES

- A.** Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
- B.** Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Owner before proceeding.
- C.** Adjust products to appropriate dimensions; position before securing products in place.

3.4 TESTING AND INSPECTION

- A.** See individual specification sections for testing required.
- B.** Testing Agency Duties:
 - 1.** Test samples of mixes submitted by Contractor.
 - 2.** Provide qualified personnel at site. Cooperate with Owner and Contractor in performance of services.
 - 3.** Perform specified sampling and testing of products in accordance with specified standards.
 - 4.** Ascertain compliance of materials and mixes with requirements of Contract Documents.
 - 5.** Promptly notify Owner and Contractor of observed irregularities or non-conformance of Work or products.
 - 6.** Perform additional tests and inspections required by Owner.
 - 7.** Submit reports of all tests/inspections specified.
- C.** Limits on Testing/Inspection Agency Authority:
 - 1.** Agency may not release, revoke, alter, or enlarge on requirements of Contract

Documents.

2. Agency may not approve or accept any portion of the Work.
3. Agency may not assume any duties of Contractor.
4. Agency has no authority to stop the Work.

D. Contractor Responsibilities:

1. Deliver to agency at designated location, adequate samples of materials proposed to be used which require testing, along with proposed mix designs.
 2. Cooperate with laboratory personnel, and provide access to the Work and to manufacturers' facilities.
 3. Provide incidental labor and facilities:
 - a. To provide access to Work to be tested/inspected.
 - b. To obtain and handle samples at the site or at source of Products to be tested/inspected.
 - c. To facilitate tests/inspections.
 - d. To provide storage and curing of test samples.
 4. Notify Owner and laboratory 24 hours prior to expected time for operations requiring testing/inspection services.
 5. Employ services of an independent qualified testing laboratory and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
 6. Arrange with Owner's agency and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
- E.** Re-testing required because of non-conformance to specified requirements shall be performed by the same agency on instructions by the Owner. Payment for re testing will be charged to the Contractor by deducting testing charges from the Contract Price.

3.5 MANUFACTURERS' FIELD SERVICES

- A.** When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust and balance of equipment as applicable, and to initiate instructions when necessary.
- B.** Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

3.6 DEFECT ASSESSMENT

- A.** Replace Work or portions of the Work not conforming to specified requirements.
- B.** If, in the opinion of the Owner it is not practical to remove and replace the Work, they will direct an appropriate remedy or adjust payment.

END OF SECTION

SECTION 015000 – TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.01 ACCESS, PARKING, STORAGE AND SITE VISIT

- A. The prospective Bidder shall familiarize himself with the traffic regulations and parking and storage areas he will become involved with if he becomes the Contractor. The Contractor shall inform his workmen of these regulations and conditions.
- B. Parking and storage areas shall be as designated by the Owner.
- C. Contact **Chase Meyer, Project Manager, Kansas Army National Guard, 2722 SW Topeka Blvd., Topeka, KS 66611** at telephone number **(785) 646-0712**, for assistance in exploring the area(s) of access, parking, storage and work.

1.02 TEMPORARY EQUIPMENT

- A. Provide temporary equipment required for proper progress of Work and remove same at completion of Work.

1.03 CONTRACTOR'S FIELD OFFICES AND STORAGE

- A. Contractor shall provide for his own use; location shall be as approved by the Owner.
- B. Field office for Architect/Engineer not required.

1.04 TOILET ACCOMMODATIONS

- A. Contractor shall provide one Port-a-Potty (1-Construction staff) for the entire length of the project.

1.05 WATER

- A. Contractor may use existing service at Owner's expense.
- B. Contractor shall provide all temporary connections, hose, etc., and shall remove at completion of the Project.
- C. All temporary connections to the domestic water system shall be protected by a reduced pressure principle backflow preventor, provided by this Contractor.

1.06 ELECTRICAL SERVICES

- A. Contractor may use existing service at Owner's expense.
- B. Contractor shall provide all temporary connections, cords, etc., and shall remove at completion of the Project.
- C. Any damage resulting from improper connections or overload shall be repaired at the expense of the Contractor and in a manner acceptable to the Owner.

1.07 HEAT

- A. N/A

1.08 TELEPHONE

- A. Contractor shall provide at his own expense phone service for his site superintendent, and shall provide that phone number to the Owner and Architect.

PART 2 – PRODUCTS (Not Used)

August 2024

KSARNG 20A781
Concordia RC Renovation

PART 3 – EXECUTION (Not Used)

END OF SECTION 015000

SECTION 016000 PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. General product requirements.
- B. Transportation, handling, storage and protection.
- C. Product option requirements.
- D. Substitution limitations and procedures.
- E. Procedures for Owner-supplied products.
- F. Spare parts and maintenance materials.

1.2 RELATED SECTIONS

- A. Section 014000 - Quality Requirements: Product quality monitoring.

1.3 REFERENCES

- A. NFPA 70 - National Electrical Code; National Fire Protection Association; 2005
- B. All other local applicable codes.

1.4 SUBMITTALS

- A. Proposed Products List: Submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
 - 1. For products specified only by reference standards, list applicable reference standards.
- B. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- C. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- D. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
 - 1. For selection from standard finishes, submit samples of the full range of the manufacturer's standard colors, textures, and patterns.
- E. Indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

PART 2 - PRODUCTS

2.1 NEW PRODUCTS

- A. Provide new products unless specifically required or permitted by the Contract Documents.
- B. Provide interchangeable components of the same manufacture for components being replaced.

2.2 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

2.3 SPARE PARTS AND MAINTENANCE PRODUCTS

- A. Provide spare parts, maintenance, and extra products of types and in quantities specified in individual specification sections.
- B. Deliver to Project site; obtain receipt prior to final payment.

PART 3 - EXECUTION

3.1 SUBSTITUTION PROCEDURES

- A. Substitution requests will only be considered by the Owner if they are submitted no later than 10 days prior to the date established for the opening of bids.
- B. Substitutions may be considered when a product becomes unavailable through no fault of the Contractor.
- C. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.
- D. A request for substitution constitutes a representation that the submitter:
 - 1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
 - 2. Will provide the same warranty for the substitution as for the specified product.
 - 3. Will coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to Owner.
- E. Substitutions will not be considered when they are indicated or implied on shop

drawing or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.

- F. Substitution Submittal Procedure:
1. Submit three copies of any request for substitution for consideration on the "Substitution Request Form." Limit each request to one proposed substitution.
 2. Submit shop drawings, product data, and certified test results attesting to the proposed product equivalence. Burden of proof is on proposer.
 3. The Owner will notify Contractor in writing of decision to accept or reject request.

3.2 OWNER-SUPPLIED PRODUCTS

- A. See Section 011000 - Summary for identification of Owner-supplied products.
- B. Owner's Responsibilities:
1. Arrange for and deliver Owner reviewed shop drawings, product data, and samples, to Contractor.
 2. Arrange and pay for product delivery to site.
 3. On delivery, inspect products jointly with Contractor.
 4. Submit claims for transportation damage and replace damaged, defective, or deficient items.
 5. Arrange for manufacturers' warranties, inspections, and service.
- C. Contractor's Responsibilities:
1. Review Owner reviewed shop drawings, product data, and samples.
 2. Receive and unload products at site; inspect for completeness or damage jointly with Owner.
 3. Handle, store, install and finish products.
 4. Repair or replace items damaged after receipt.

3.3 TRANSPORTATION AND HANDLING

- A. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
- B. Transport and handle products in accordance with manufacturer's instructions.
- C. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.
- D. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- E. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.
- F. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

3.4 STORAGE AND PROTECTION

- A. Designate receiving/storage areas for incoming products so that they are delivered

according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication.

- B. Store and protect products in accordance with manufacturers' instructions.
- C. Store with seals and labels intact and legible.
- D. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.
- E. For exterior storage of fabricated products, place on sloped supports above ground.
- F. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- G. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
- H. Prevent contact with material that may cause corrosion, discoloration, or staining.
- I. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- J. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

3.5 SUBSTITUTION REQUEST FORM

To: _____

Project: _____

We hereby submit for your consideration the following product in lieu of the specified item for the above project.

SECTION	PARAGRAPH	SPECIFIED ITEM	PROPOSED SUBSTITUTION
_____	_____	_____	_____

- ☛ Provide all information required as described by paragraph "Submittals".
- ☛ Attach complete technical data, including laboratory test, if applicable.
- ☛ Include complete information on changes to Drawings and/or Specifications which proposed substitution will require for its proper installation.
- ☛ Comply with Section 016000.
- ☛ Answer the questions below:

A. Does the substitution affect dimensions shown on the Drawings? **Yes / No**

B. Will the undersigned pay for changes to the building design including engineering and detailing costs caused by the requested substitution? **Yes / No**

C. Does the substitution have effects on other trades? **Yes / No**

D. Are there differences between the proposed substitution and specified item? **Yes / No**
(If answer to any of the above is Yes, please explain on attachment)

E. Manufacturer's guarantees of the proposed and specified items are: **Same / Different**
(explain differences on attachment)

The undersigned states that the function, appearance, and quality are equivalent or superior to the specified item.

Submitted by:

Signature _____

For use by Design Consultant:

Firm: _____

Accepted **Accepted as noted**

Address: _____

Not Accepted **Received too late**

Date: _____

Telephone: _____

END OF SECTION

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SECTION 017000 EXECUTION REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Examination, preparation, and general installation procedures.
- B. Pre-installation meetings.
- C. Cutting and patching.
- D. Surveying for laying out the work.
- E. Cleaning and protection.
- F. Starting of systems and equipment.
- G. Demonstration and instruction of Owner personnel.
- H. Closeout procedures, except payment procedures.

1.2 RELATED SECTIONS

- A. Section 013000 - Administrative Requirements: Submittals procedures.
- B. Section 014000 - Quality Requirements: Testing and inspection procedures.
- C. Section 017800 - Closeout Submittals: Project record documents, operation and maintenance data, warranties and bonds.

1.3 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Survey work: Submit name, address, and telephone number of Surveyor before starting survey work.
 - 1. On request, submit documentation verifying accuracy of survey work.
 - 2. Submit a copy of site drawing signed by the Land Surveyor, that the elevations and locations of the work are in conformance with Contract Documents.
 - 3. Submit surveys and survey logs for the project record.
- C. Cutting and Patching: Submit written request in advance of cutting or alteration which affects:
 - 1. Structural integrity of any element of Project.
 - 2. Integrity of weather exposed or moisture resistant element.
 - 3. Efficiency, maintenance, or safety of any operational element.
 - 4. Visual qualities of sight exposed elements.

5. Work of Owner or separate Contractor.

D. Project Record Documents: Accurately record actual locations of capped and active utilities.

1.4 QUALIFICATIONS

A. For survey work, employ a land surveyor registered in Kansas and acceptable to the Owner. Submit evidence of Surveyor's Errors and Omissions insurance coverage in the form of an Insurance Certificate.

B. For field engineering, employ a professional engineer of the discipline required for specific service on Project, licensed in Kansas.

1.5 PROJECT CONDITIONS

A. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.

B. Protect site from puddling or running water. Provide water barriers as required to protect site from soil erosion.

C. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.

D. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere.

E. Erosion and Sediment Control: Plan and execute work by methods to control surface drainage from cuts and fills, from borrow and waste disposal areas. Prevent erosion and sedimentation.

1. Minimize amount of bare soil exposed at one time.

2. Provide temporary measures such as berms, dikes, and drains, to prevent water flow.

3. Construct fill and waste areas by selective placement to avoid erosive surface silts or clays.

4. Periodically inspect earthwork to detect evidence of erosion and sedimentation; promptly apply corrective measures.

F. Noise Control: Provide methods, means, and facilities to minimize noise produced by construction operations.

G. Rodent Control: Provide methods, means, and facilities to prevent rodents from accessing or invading premises.

1.6 COORDINATION

A. See Section 011000 for occupancy-related requirements.

- B. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- C. Notify affected utility companies and comply with their requirements.
- D. Verify that utility requirements and characteristics of new operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- E. Coordinate space requirements, supports, and installation of mechanical and electrical work which are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- F. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- G. Coordinate completion and clean-up of work of separate sections.
- H. After Owner occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

PART 2 - PRODUCTS

2.1 PATCHING MATERIALS

- A. New Materials: As specified in product sections; match existing products and work for patching and extending work.
- B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.
- C. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 016000.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.

- D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.
- E. Verify that utility services are available, of the correct characteristics, and in the correct locations.
- F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

3.2 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

3.3 PRE-INSTALLATION MEETINGS

- A. When required in individual specification sections, convene a pre-installation meeting at the site prior to commencing work of the section.
- B. Require attendance of parties directly affecting, or affected by, work of the specific section.
- C. Notify Owner 14 days in advance of meeting date.
- D. Prepare agenda and preside at meeting:
 - 1. Review conditions of examination, preparation and installation procedures.
 - 2. Review coordination with related work.
- E. Record minutes and distribute copies within two days after meeting to participants, with two copies to Owner, participants, and those affected by decisions made.

3.4 LAYING OUT THE WORK

- A. Verify locations of survey control points prior to starting work.
- B. Promptly notify Owner of any discrepancies discovered.
- C. Contractor shall locate and protect survey control and reference points.
- D. Control datum for survey is that indicated on Drawings.
- E. Protect survey control points prior to starting site work; preserve permanent reference points during construction.

- F. Promptly report to Owner the loss or destruction of any reference point or relocation required because of changes in grades or other reasons.
- G. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Owner.
- H. Utilize recognized engineering survey practices.
- I. Establish a minimum of two permanent bench marks on site, referenced to established control points. Record locations, with horizontal and vertical data, on project record documents.
- J. Establish elevations, lines and levels. Locate and lay out by instrumentation and similar appropriate means:
 - 1. Site improvements including pavements; stakes for grading, fill and topsoil placement; utility locations, slopes, and invert elevations.
 - 2. Grid or axis for structures.
 - 3. Building foundation, column locations, ground floor elevations.
- K. Periodically verify layouts by same means.
- L. Maintain a complete and accurate log of control and survey work as it progresses.

3.5 GENERAL INSTALLATION REQUIREMENTS

- A. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.
- B. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.
- C. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.
- D. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.
- E. Make neat transitions between different surfaces, maintaining texture and appearance.

3.6 CUTTING AND PATCHING

- A. Execute cutting and patching including excavation and fill to complete the work, to uncover work in order to install improperly sequenced work, to remove and replace defective or non-conforming work, to remove samples of installed work for testing when requested, to provide openings in the work for penetration of mechanical and electrical work, to execute patching to complement adjacent work, and to fit products together to integrate with other work.
- B. Execute work by methods to avoid damage to other work, and which will provide

appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.

- C. Employ original installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.
- D. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.
- E. Restore work with new products in accordance with requirements of Contract Documents.
- F. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- G. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material, to full thickness of the penetrated element.
- H. Refinish surfaces to match adjacent finish. For continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
- I. Make neat transitions. Patch work to match adjacent work in texture and appearance.
- J. Patch or replace surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. Repair substrate prior to patching finish. Finish patches to produce uniform finish and texture over entire area. When finish cannot be matched, refinish entire surface to nearest intersections.

3.7 PROGRESS CLEANING

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
- C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
- D. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

3.8 PROTECTION OF INSTALLED WORK

- A. Protect installed work from damage by construction operations.
- B. Provide special protection where specified in individual specification sections.
- C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.

- D. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- E. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- F. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- G. Remove protective coverings when no longer needed; reuse or recycle plastic coverings if possible.

3.9 STARTING SYSTEMS

- A. Coordinate schedule for start-up of various equipment and systems.
- B. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions which may cause damage.
- C. Verify tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
- D. Verify that wiring and support components for equipment are complete and tested.
- E. Execute start-up under supervision of applicable Contractor personnel and manufacturer's representative in accordance with manufacturers' instructions.
- F. When specified in individual specification Sections, require manufacturer to provide authorized representative to be present at site to inspect, check, and approve equipment or system installation prior to start-up, and to supervise placing equipment or system in operation.
- G. Submit a written report that equipment or system has been properly installed and is functioning correctly.

3.10 DEMONSTRATION AND INSTRUCTION

- A. Demonstrate operation and maintenance of products to Owner's personnel two weeks prior to date of Substantial Completion.
- B. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at scheduled time, at equipment location.
- C. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.
- D. Provide a qualified person who is knowledgeable about the Project to perform demonstration and instruction of owner personnel.

- E. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance.
- F. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.
- G. The amount of time required for instruction on each item of equipment and system is that specified in individual sections.

3.11 ADJUSTING

- A. Adjust operating products and equipment to ensure smooth and unhindered operation.

3.12 FINAL CLEANING

- A. Execute final cleaning prior to Substantial Completion.
- B. Use cleaning materials that are nonhazardous.
- C. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
- D. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
- E. Clean filters of operating equipment.
- F. Clean debris from roofs, gutters, downspouts, and drainage systems.
- G. Clean site; sweep paved areas, rake clean landscaped surfaces.
- H. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.
- I. Re-grade, re-shape, and re-seed any existing grass areas that have been disturbed.

3.13 CLOSEOUT PROCEDURES

- A. Make submittals that are required by governing or other authorities.
 - 1. Provide copies to Owner.
- B. Notify Owner when work is considered ready for Substantial Completion.
- C. Submit written certification that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Owner's review.
- D. Correct items of work listed in executed Certificates of Substantial Completion and

comply with requirements for access to Owner-occupied areas.

- E. Notify Owner when work is considered finally complete.
- F. Complete items of work determined by Owner's final review.

END OF SECTION

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SECTION 017329 - CUTTING AND PATCHING

PART 1 GENERAL

1.01 SECTION INCLUDES:

- A. Related Documents
- B. Summary
- C. Submittals
- D. Quality Assurance

1.02 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification sections, apply to this section.

1.03 SUMMARY

- A. This Section specifies administrative and procedural requirements for cutting and patching.
- B. Refer to other Sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work.

1.04 SUBMITTALS

- A. Cutting and Patching Description: Where approval of procedures for cutting and patching is required before proceeding, submit a description of the procedures well in advance of the time cutting and patching will be performed and request approval to proceed. Include the following information, as applicable, in the proposal:
 - 1. Describe the extent of cutting and patching required and how it is to be performed. Indicate why it cannot be avoided.
 - 2. Describe anticipated results in terms of changes to existing construction; include changes to structural elements and operating components as well as changes in the building's appearance and other significant visual elements.
 - 3. List products to be used and firms or entities that will perform Work.
 - 4. Indicate dates when cutting and patching is to be performed.
 - 5. Where cutting and patching involves addition of reinforcement to structural elements, submit details and engineering calculations signed and sealed by a qualified professional engineer licensed in the State of Kansas to show how reinforcement is integrated with the original structure.
 - 6. Approval by the Architect to proceed with cutting and patching does not waive the Architect's right to later require complete removal and replacement of a part of the Work found to be unsatisfactory.

1.05 QUALITY ASSURANCE

- A. Requirements for Structural Work: Do not cut and/or patch structural elements in a manner that would reduce their load-carrying capacity or load-deflection ratio, thus creating unsafe conditions for workers or the public.
- B. Operational and Safety Limitations: Do not cut and patch operating elements or safety related components in a manner that would result in reducing their capacity to perform as intended, or result in increase maintenance, or decreased functional life or safety.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION

3.01 INSPECTION

- A. Before cutting existing surfaces, examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed. Take corrective action before proceeding, if unsafe or unsatisfactory conditions are encountered.

3.02 PREPARATION

- A. Temporary Support: Provide temporary support of Work to be cut as required for safety.
- B. Protection: Protect existing components during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of the Project that might be exposed during cutting and patching operations.
- C. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Take all precautions necessary to avoid cutting existing utilities serving the neighboring properties, but scheduled to be removed or relocated until provisions have been made to bypass them.

3.03 PERFORMANCE

- A. General: Employ skilled workmen to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay.
 - 1. Cut existing construction to provide for installation of other components or performance of other construction/demolition activities.
- B. Cutting: Cut existing construction using methods least likely to damage elements to be retained or adjoining construction. Where possible review proposed procedures with the original installer; comply with the original installer's recommendations.
 - 1. Cut through concrete and masonry using a cutting machine such as a carborundum saw or diamond core drill.
 - 2. Comply with requirements of applicable Sections of Division-2 where cutting and patching requires excavating and backfilling.
 - 3. By-pass utility services such as pipe or conduit, before cutting, where services are shown or required to be removed, relocated or abandoned. Cut off pipe or conduit in walls or partitions to be removed. Cap, valve or plug and seal the remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after by-passing and cutting.

END OF SECTION 017329

MVSC Fencing Replacement 25 April, 2014
Colby, KS

CFMO A502

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SECTION 017419 CONSTRUCTION AND DEMOLITION MATERIALS RECYCLING REQUIREMENTS

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PART 1 - GENERAL

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1.1 SUMMARY

- A. Section includes: Requirements and procedures for ensuring optimal diversion of construction waste materials generated by the Work from landfill disposal within the limits of the Construction Schedule and Contract Sum.
 - 1. Recycling Requirements: This project shall meet the requirements of Army regulation 420-1, 12 Feb, 08, subject: Army Facilities Management and DAIM-OD, 27 Mar., 09, subject: FY09 Solid Waste Annual Reporting (SWARWeb) schedule regarding recycling of Construction and Demolition Waste. This includes requirements for submittal of:
 - a. Contractor's Waste Management and Recycling Plan prior to the commencement of the Work.
 - b. Contractor's quantitative reports for reuse, recycling, and disposal generated by the Contractor, as a condition of approval of progress payments.
 - 2. To comply with the requirements of Executive Order 13514, the Work of this Contract requires that a minimum of 50% by weight of the construction and demolition materials generated in the Work is diverted from landfill disposal through a combination of re-use and recycling activities.

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1.2 DEFINITIONS

- A. Construction and Demolition Debris: As defined in KSA 65-3402(u): Building materials and solid waste resulting from construction, remodeling, repair, cleanup, or demolition operations that are not hazardous. This term includes, but is not limited to: ~~asphalt concrete, Portland cement concrete, brick, lumber, gypsum wallboard, cardboard and other associated packaging, roofing material, ceramic tile, carpeting, plastic pipe, and steel. The debris may be commingled with rock, soil, tree stumps, and other vegetative matter resulting from land clearing and landscaping for construction or land development projects.~~

- [Asphalt](#)
- [Brick](#)
- [Concrete](#)
- [Stone](#)
- [Soil](#)
- [Vegetation/Timber](#)
- [Aluminum](#)
- [Copper](#)

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MVSC Fencing Replacement 25 April, 2014
Colby, KS

CFMO A502

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- [Mixed Metal](#)
- [Steel](#)
- [Ceiling Tile](#)
- [Composition Roof](#)
- [Doors/Windows/Stairs/Cabinets](#)
- [Glass](#)
- [Gypsum/Plaster](#)
- [Insulations](#)
- [Paper](#)
- [Plastic](#)
- [Siding](#)
- [Wood](#)

Excluded from this definition are asbestos containing debris, appliances containing chlorofluorocabrons (CFCs), electrical equipment containing hazardous materials such as polychlorinated biphenyls (PCBs), tires and drums.

- B. Disposal. Final deposition of solid waste into a land management unit, including stockpiling onto land of construction and demolition debris that has not been sorted for further processing or resale, if such stockpiling is for a period of time greater than 30 days; and construction and demolition debris that has been sorted for further processing or resale, if such stockpiling is for a period of time greater than one year, or stockpiling onto land of inert debris that is for a period of time greater than one year. For solid wastes that are classified as hazardous waste, this includes delivery of the hazardous waste to a permitted Transfer, Storage, or Disposal Facility.
- C. Mixed Debris Recycling Facility: A processing facility that accepts loads of commingled construction and demolition debris for the purpose of recovering re-usable and recyclable materials and disposing the non-recyclable residual materials.
- D. Recycling: The process of sorting, cleansing, treating and reconstituting materials for the purpose of using the altered form in the manufacture of a new product. Recycling does not include burning, incinerating or thermally destroying solid waste.
- E. Reuse. The use, in the same or similar form as it was produced, of a material which might otherwise be discarded. Materials destined for reuse count towards the 50% requirement.
- F. Segregation Point. An identified area where materials to be recycled are placed.
- G. Separated for Reuse. Materials, including commingled recyclables, that have been separated or kept separate from the solid waste stream for the purpose of additional sorting or processing those materials for reuse or recycling in order to return them to the economic mainstream in the form of raw material for new, reused, or reconstituted products which meet the quality standards necessary to be used in the marketplace, and includes materials that have been "source separated".
- H. Solid Waste: As defined by 261.2(a)(1), any discarded material that is not excluded under 261.4(a), 260.31, 260.30, and 260.34. This includes all solids, liquids, semi-solids

MVSC Fencing Replacement — 25 April, 2014
Colby, KS — CFMO — A502

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and gasses. Construction and demolition debris and hazardous wastes are considered sub-categories of solid wastes.

- I. Source-Separated: Materials, including commingled recyclables, that have been separated or kept separate from the solid waste stream at the point of generation, for the purpose of additional sorting or processing of those materials for reuse or recycling in order to return them to the economic mainstream in the form of raw materials for new, reused, or reconstituted products which meet the quality standards necessary to be used in the marketplace.
- J. Waste Hauler: A company that possesses a valid permit from the [local waste management authority to collect and transport solid wastes from individuals or businesses for the purpose of recycling or disposal in [the locality].

1.3 SUBMITTALS

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- A. Contractor's Construction Waste and Recycling Plan
 - 1. Prior to commencing the Work, the Contractor must submit a Contractor's Construction Waste and Recycling plan.
 - 2. Indicate the procedures that will be implemented to identify and separate materials for recycling from materials to be disposed of. This should include a figure identifying a convenient location where dumpsters or other segregation points would be located and the signage used to appropriately identify the materials to be placed in that area. Using Attachment A of Section 017419, include an estimated quantity of each waste type in either tonnage or cubic feet.
 - 3. Contractor's Construction Waste and Recycling Plan must be approved by the Architect prior to the start of Work.
 - 4. Contractor's Construction Waste and Recycling Plan will not otherwise relieve the Contractor of responsibility for adequate and continuing control of pollutants, other environmental protection measures, and adherence to all environmental regulations in the state of Kansas.
- B. Contractor's Reuse, Recycling, and Disposal Report
 - 1. Submit Contractor's Reuse, Recycling, and Disposal Report on the form provided (Section 017419 Att B) with each application for progress payment. If a field is not applicable to a Project, the Contractor must insert either an "N/A" or "0" as applicable. Failure to submit the form and its supporting documentation will render the application for progress payment incomplete and delay progress payments. Include manifests, weight tickets, receipts, and invoices specifically identifying the Project for all re-used, recycled, and disposed materials:

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MVSC Fencing Replacement 25 April, 2014
Colby, KS CFMO A502

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**PART 2 – PRODUCTS
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PART 3 - EXECUTION

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3.1 SALVAGE, RE-USE, RECYCLING AND PROCEDURES

- A. Contractor should make a good faith effort to implement the Construction Waste and Recycling Plan and submitted to the Architect. Changes in the location of segregation points should be approved by the KSARNG site manager. Changes in the reuse or disposal facility should be approved by the Architect.

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3.2 DISPOSAL OPERATIONS AND WASTE HAULING

- A. Materials that cannot be delivered to a source separated or mixed recycling facility should be disposed of at a facility that has the appropriate permits to handle the material. Only material meeting the definition of Construction and Demolition Debris may be delivered to a Construction and Demolition Landfill.
- B. Use a permitted waste hauler or Contractor's trucking services and personnel. To confirm valid permitted status of waste haulers, contact the local solid waste authority. Asbestos, PCB-containing or other wastes that are determined to be hazardous under the Resource Conservation and Recovery act must be transported by a permitted hazardous waste transporter.
- C. Become familiar with the conditions for acceptance of new construction, excavation and demolition materials at recycling facilities, prior to delivering materials.
- D. Deliver to facilities that can legally accept new construction, excavation and demolition materials for purpose of re-use, recycling, composting, or disposal.
- E. Do not burn, bury or otherwise dispose of solid waste on the project job-site.

3.3 RE-USE AND DONATION OPTIONS

- A. Implement a re-use program to the greatest extent feasible. Options may include:
 - 1. Return un-used materials in full unopened packages to distributor and/or vendor. Be cognizant to maintain required specified quantities of materials being left on site at the completion of work as specified elsewhere herein this specification.
 - 2. Use of a material at another KSARNG project.

August 2024

KSARNG 20A781
Concordia RC Renovation

~~MVSC Fencing Replacement~~ ~~25 April, 2014~~
~~Colby, KS~~ ~~CFMO~~ ~~A502~~

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3. Donation of surplus supplies to non-profit or educational institutions.

3.4 REVENUE

- A. Revenues or other savings obtained from recycled, re-used, or salvaged materials shall accrue to Contractor unless otherwise noted in the Contract Documents.

END OF SECTION

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CONTRACTOR'S CONSTRUCTION WASTE AND RECYCLING PLAN

(Submit After Award of Contract and Prior to Start of Work)

Project Title:	
Contract or Work Order No.:	
Contractor's Name:	
Prepared by: (Print Name)	
E-Mail Address:	

Date Submitted:			
Project Period:	From:		TO:

Section I- Materials Generated and Disposition

Include all recycling activities for source separated or mixed material recycling centers where recycling will occur.

Material Description	Facility Name, Location and Permit Number (if applicable)	Hazardous? (Yes/No)	Disposition (Disposal/Recycle)	Quantities	
				Qty	Unit

Bulbs
CFL
Fluorescent

Bulky Items
Electronics
Scrap Furniture
White Goods/Appliances

CD Debris
ABC- Asphalt
ABC- Concrete
ABC - Concrete Block Unit
ABC - Other (C&D Masonry/Asphalt)
ABC - Stone
Land - Crushed Stone/Base
Land - Other (C/D Land Clearing)
Land- Soil, Lead-Tainted, Non-Hazardous
Land-Soil, Petroleum-Tainted
Land-Soil, Subsoil
Land-Soil, Top
Land-Vegetation/Timber (Tree Trunks & Limbs)
Metal-Aluminum
Metal-Copper
Metal-Mixed Metal
Metal-Other (C/D Metal)
Metal-Steel
OD/I/M-Ceiling Tile
OD/I/M-Composition Roof
OD/I/M-Doors/Windows/Stairs/Cabinets
OD/I/M-Glass
OD/I/M-Gypsum/Plaster
OD/I/M-Insulation
OD/I/M-Other (C/D Other)
OD/I/M-Paper
OD/I/M-Plastic
OD/I/M-Siding
Recycled C&D Debris
Wood-Finished
Wood-Other (C/D Wood)
Wood-Structural
Wood-Treated

Composting	Glass	Metals	NonFoodOther	Plastic
Landscape Trimmings - Onsite	Clear	Aluminum	Mixed Recyclables	Film Plastic
Landscape Trimmings - Offsite	Colored	Aluminum Cans	Other (Non-Food)	HDPE #2 Bottles
	Other	Bimetal Cans	Rubber	Other (Plastic)
		Brass	Sandblast Residue	PETE #1
		Copper	STP (sewage) Sludges	Plastics Nos. 3-7
		Hi-Temp Alloys	Tires (Automobiles)	
		Other (Metals)	Tires (Light Trucks)	
		Steel		
		WCF Metals		

Textiles	Wood
Fabric/Textiles/Rags	Other (Wood)
Other (Textiles)	Pallets, Scrap
Rags (Non-Hazardous)	Timber/Wood Waste

Disposal Process
Disposal
Reuse/Recycle

Unit
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Yes
No

Section 017419 Att B
CONTRACTOR'S CONSTRUCTION WASTE AND RECYCLING PLAN
(Submit With Final Payment)

Project Title:
Contract or Work Order No.:
Contractor's Name:
Prepared by: (Print Name)
E-Mail Address:

Date Submitted:			
Project Period:	From:		TO:

Section I- Materials Generated and Disposition

Include all recycling activities for source separated or mixed material recycling centers where recycling will occur.

Material Description	Facility Name, Location and Permit Number (if applicable)	Hazardous? (Yes/No)	Disposition (Disposal/Recycle)	Quantities	
				Qty	Unit

Bulbs
CFL
Fluorescent

Bulky Items
Electronics
Scrap Furniture
White Goods/Appliances

CD Debris
ABC- Asphalt
ABC- Concrete
ABC - Concrete Block Unit
ABC - Other (C&D Masonry/Asphalt)
ABC - Stone
Land - Crushed Stone/Base
Land - Other (C/D Land Clearing)
Land- Soil, Lead-Tainted, Non-Hazardous
Land-Soil, Petroleum-Tainted
Land-Soil, Subsoil
Land-Soil, Top
Land-Vegetation/Timber (Tree Trunks & Limbs)
Metal-Aluminum
Metal-Copper
Metal-Mixed Metal
Metal-Other (C/D Metal)
Metal-Steel
OD/I/M-Ceiling Tile
OD/I/M-Composition Roof
OD/I/M-Doors/Windows/Stairs/Cabinets
OD/I/M-Glass
OD/I/M-Gypsum/Plaster
OD/I/M-Insulation
OD/I/M-Other (C/D Other)
OD/I/M-Paper
OD/I/M-Plastic
OD/I/M-Siding
Recycled C&D Debris
Wood-Finished
Wood-Other (C/D Wood)
Wood-Structural
Wood-Treated

Composting	Glass	Metals	NonFoodOther	Plastic
Landscape Trimmings - Onsite	Clear	Aluminum	Mixed Recyclables	Film Plastic
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		Brass	Sandblast Residue	PETE #1
		Copper	STP (sewage) Sludges	Plastics Nos. 3-7
		Hi-Temp Alloys	Tires (Automobiles)	
		Other (Metals)	Tires (Light Trucks)	
		Steel		
		WCF Metals		

Textiles	Wood
Fabric/Textiles/Rags	Other (Wood)
Other (Textiles)	Pallets, Scrap
Rags (Non-Hazardous)	Timber/Wood Waste

Disposal Process
Disposal
Reuse/Recycle

Unit
ton
cu. Yd.

Yes
No

SECTION 017800 CLOSEOUT SUBMITTALS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Project Record Documents.
- B. Operation and Maintenance Data.
- C. Warranties and bonds.

1.2 RELATED SECTIONS

- A. Section 013000 - Administrative Requirements: Submittals procedures, shop drawings, product data, and samples.
- B. Section 017000 - Execution Requirements: Contract closeout procedures.
- C. Individual Product Sections: Specific requirements for operation and maintenance data.
- D. Individual Product Sections: Warranties required for specific products or Work.

1.3 SUBMITTALS

- A. Project Record Documents: Submit documents to Owner or with claim for final Application for Payment.
- B. Operation and Maintenance Data:
 - 1. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Owner will review draft and return one copy with comments.
 - 2. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit completed documents within ten days after acceptance.
 - 3. Email 1 electronic copy of completed documents 15 days prior to final inspection. This copy will be reviewed and returned after final inspection, with Owner comments. Revise content of all document sets as required prior to final submission.
 - 4. Submit three 3-ring binder hard copies and jump drives of revised final documents in final form within 10 days after final inspection.
- C. Warranties and Bonds:
 - 1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within ten days after acceptance.

2. Make other submittals within ten days after Date of Substantial Completion, prior to final Application for Payment.
3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within ten days after acceptance, listing the date of acceptance as the beginning of the warranty period.

PART 2 – PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
 1. Drawings.
 2. Specifications.
 3. Addenda.
 4. Change Orders and other modifications to the Contract.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress.
- E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
 1. Changes made by Addenda and modifications.
- F. Record Drawings: Legibly mark each item to record actual construction including:
 1. Field changes of dimension and detail.
 2. Details not on original Contract drawings.

3.2 OPERATION AND MAINTENANCE DATA

- A. For Each Product or System: List names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.
- B. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
- C. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.
- D. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

3.3 OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINISHES

- A. For Each Product, Applied Material, and Finish:
 - 1. Product data, with catalog number, size, composition, and color and texture designations.
- B. Instructions for Care and Maintenance: Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental cleaning agents and methods, and recommended schedule for cleaning and maintenance.

3.4 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS

- A. For Each Item of Equipment and Each System:
 - 1. Description of unit or system, and component parts.
 - 2. Identify function, normal operating characteristics, and limiting conditions.
 - 3. Include performance curves, with engineering data and tests.
 - 4. Complete nomenclature and model number of replaceable parts.
- B. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.
- C. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- D. Provide servicing and lubrication schedule, and list of lubricants required.
- E. Include manufacturer's printed operation and maintenance instructions.
- F. Include sequence of operation by controls manufacturer.
- G. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- H. Additional Requirements: As specified in individual product specification sections.

3.5 OPERATION AND MAINTENANCE MANUALS

- A. Prepare instructions and data by personnel experienced in maintenance and operation of described products.
- B. Prepare data in the form of an instructional manual.

3.6 WARRANTIES AND BONDS

- A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within ten days after completion of the applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until the Date of Substantial completion is determined.
- B. Verify that documents are in proper form, contain full information, and are notarized.
- C. Co-execute submittals when required.
- D. Retain warranties and bonds until time specified for submittal.
- E. By accepting payment for the Work, the Contractor shall Warranty the work for two years after Substantial completion.

END OF SECTION

SECTION 019998 ENVIRONMENTAL MANAGEMENT SYSTEM

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Program Description.
- B. Referenced Documents
- C. Contractual Assent and Procedural Requirements

1.2 RELATED SECTIONS

- A. Section 014000 - Quality Requirements: Product quality monitoring.
- B. Section 016000-Products Requirements

1.3 REFERENCES

- A. Kansas Army National Guard: Environmental Policy Handout and Summary of EMS
- B. Presidential Executive Order 13148
- C. Kansas Army National Guard: The Adjutant General's Policy Letter No. 7 dated 13 September 2003.
- D. Department of the Army National Guard Memorandum: Implementation of Environmental Management Systems (EMS) dated 30 June 2003.
- E. Environmental Policy Handout: Kansas Army National Guard.

1.4 PROGRAM DESCRIPTION

- A. The Environmental Management System is a process to insure that all contractors and subcontractors involved in the execution of Kansas Army National Guard construction and maintenance project work are responsible stewards of the Environment, and comply with the above referenced standards.

1.5 CONTRACTUAL ASSENT

- A. By entering into a legal contract with the Kansas Army National Guard and it's agents for construction and maintenance projects, each contractor and any related subcontractors hereby assent and agree to:
 - 1. Comply with the reference standards listed above.
 - 2. Obtain, read, and comply with the current Environmental Policy Handout as provided by the Environmental Program Manager at the KSARNG Headquarters in Topeka, Kansas.

(NOT APPLICABLE)

**PART 3 - EXECUTION
(NOT APPLICABLE)**

END OF SECTION

SECTION 020700 - SELECTIVE DEMOLITION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Disposal of Demolished Materials
- B. Clean-Up

1.02 DISPOSAL OF DEMOLISHED MATERIALS

- A. Remove debris, rubbish and other materials resulting from demolition operations from building site. Transport and legally dispose of materials off site.
- B. "Removal of asbestos materials" is not to be included in the work of the Contract. If asbestos materials are encountered which, by the nature of the work, must be disturbed, or removed, immediately stop work in the area and notify the Architect and Owner by Telephone and in writing. Do not proceed with work in any such area except by written instructions from the Owner."

1.03 CLEAN-UP

- A. Upon completion of demolition work, remove tools, equipment and demolished materials from site.

1.04 SALVAGED ITEMS

- A. Salvage items for delivery to owner or reinstallation as noted on drawings.

END OF SECTION 020700

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SECTION 079200 - JOINT SEALANTS**PART 1 - GENERAL**

1.1 SUMMARY

- A. This Section includes joint sealants for the following applications:
 - 1. Joints in the following vertical surfaces and horizontal surfaces:
 - a. Joints between different materials.
 - b. Other joints as indicated.

1.2 PERFORMANCE REQUIREMENTS

- A. Provide elastomeric joint sealants that establish and maintain watertight and airtight continuous joint seals without staining or deteriorating joint substrates

1.4 SUBMITTALS

- A. Product Data: For each joint-sealant product indicated.
- B. Samples for Initial Selection: Manufacturer's color charts consisting of strips of cured sealants showing the full range of colors available for each product exposed to view.
- C. Product Certificates: For each type of joint sealant and accessory, signed by product manufacturer.
- D. SWRI Validation Certificate: For each elastomeric sealant specified to be validated by SWRI's Sealant Validation Program.
- E. Compatibility and Adhesion Test Reports: From sealant manufacturer, indicating the following:
 - 1. Materials forming joint substrates and joint-sealant backings have been tested for compatibility and adhesion with joint sealants.
 - 2. Interpretation of test results and written recommendations for primers and substrate preparation needed for adhesion.
- F. Product Test Reports: Based on comprehensive testing of product formulations performed by a qualified testing agency, indicating that sealants comply with requirements.
- G. Warranties: Special warranties specified in this Section.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Manufacturer's authorized installer who is approved or licensed for installation of elastomeric sealants required for this Project.
- B. Source Limitations: Obtain each kind of joint sealant through one source from a single manufacturer.

1.6 PROJECT CONDITIONS

- A. Do not proceed with installation of joint sealants under the following conditions:
 - 1. When ambient and substrate temperature conditions are outside limits permitted by joint-sealant manufacturer or are below 40 deg F (5 deg C).
 - 2. When joint substrates are wet.
 - 3. Where joint widths are less than those allowed by joint-sealant manufacturer for applications indicated.
 - 4. Where contaminants capable of interfering with adhesion have not yet been removed from joint substrates.

1.7 WARRANTY

- A. Special Installer's Warranty: Manufacturer's standard form in which Installer agrees to repair or replace joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.
 - 1. Warranty Period: **Two** years.

- B. Special Manufacturer's Warranty: Manufacturer's standard form in which elastomeric sealant manufacturer agrees to furnish joint sealants to repair or replace those that do not comply with performance and other requirements specified in this Section within specified warranty period.
 - 1. Warranty Period: 10 years.
- C. Special warranties specified in this article exclude deterioration or failure of joint sealants from the following:
 - 1. Movement of the structure caused by structural settlement or errors attributable to design or construction resulting in stresses on the sealant exceeding sealant manufacturer's written specifications for sealant elongation and compression caused by structural settlement or errors attributable to design or construction.
 - 2. Disintegration of joint substrates from natural causes exceeding design specifications.
 - 3. Mechanical damage caused by individuals, tools, or other outside agents.
 - 4. Changes in sealant appearance caused by accumulation of dirt or other atmospheric contaminants.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Products: Subject to compliance with requirements, provide one of the products listed in other Part 2 articles.

2.2 MATERIALS, GENERAL

- A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by sealant manufacturer, based on testing and field experience.
- B. VOC Content of Interior Sealants: Provide interior sealants and sealant primers that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
 - 1. Sealants: 250 g/L.
 - 2. Sealant Primers for Nonporous Substrates: 250 g/L.
 - 3. Sealant Primers for Porous Substrates: 775 g/L.
 - 4.
- C. Colors of Exposed Joint Sealants: As selected by Architect from manufacturer's full range.

2.3 ELASTOMERIC JOINT SEALANTS

- A. Elastomeric Sealants: Comply with ASTM C 92 and other requirements indicated for each liquid-applied chemically curing sealant specified, including those referencing ASTM C 920 classifications for type, grade, class, and uses related to exposure and joint substrates.
- B. Stain-Test-Response Characteristics: Where elastomeric sealants are specified to be nonstaining to porous substrates, provide products that have undergone testing according to ASTM C 1248 and have not stained porous joint substrates indicated for Project.
- C. Single-Component Nonsag Urethane Sealant:
 - 1. Products:
 - a. Sonneborn, Division of ChemRex Inc.; NP 1
 - 2. Type and Grade: S (single component) and NS (nonsag)
 - 3. Class: 25.
 - 4. Uses Related to Exposure: T (traffic) and NT (nontraffic).
 - 5. Uses Related to Joint Substrates: M, G, A, and, as applicable to join substrates indicated, O.
 - a. Use O Joint Substrates: galvanized steel, brick, wood and limestone.

2.4 JOINT SEALANT BACKING

- A. General: Provide sealant backings of material that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.
- B. Cylindrical Sealant Backings: ASTM C 1330, Type C (closed-cell material with a surface skin) Type O (open-cell material) Type B (bicellular material with a surface skin) or any of the preceding types, as approved in writing by joint-sealant manufacturer for joint application indicated, and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.

- C. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint. Provide self-adhesive tape where applicable.

2.5 MISCELLANEOUS MATERIALS

- A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.
- B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any way, and formulated to promote optimum adhesion of sealants to joint substrates.
- C. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint-sealant performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions and the following requirements:
 1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.
 2. Clean porous joint substrate surfaces by brushing, grinding, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining after cleaning operations above by vacuuming or blowing out joints with oil-free compressed air.
 3. Remove laitance and form-release agents from concrete.
 4. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants. Nonporous joint substrates include the following:
 - a. Metal.
- B. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or as indicated by preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.
- C. Masking Tape: Use masking tape where required to prevent contact of sealant with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

3.3 INSTALLATION OF JOINT SEALANTS

- A. General: Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.
- B. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.
- C. Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
 1. Do not leave gaps between ends of sealant backings.
 2. Do not stretch, twist, puncture, or tear sealant backings.

3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.
 - D. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.
 - E. Install sealants using proven techniques that comply with the following and at the same time backings are installed:
 1. Place sealants so they directly contact and fully wet joint substrates.
 2. Completely fill recesses in each joint configuration.
 3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
 - F. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified in subparagraphs below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.
 1. Remove excess sealant from surfaces adjacent to joints.
 2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
 3. Provide concave joint profile per Figure 5A in ASTM C 1193, unless otherwise indicated.
 - a. Use masking tape to protect surfaces adjacent to recessed tooled joints.
- 3.4 CLEANING
- A. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.
- 3.5 PROTECTION
- A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from original work.

END OF SECTION 079200

SECTION 088700 - WINDOW FILM

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Safety and Security Window Film:
 - 1. Safety and sun control film. Safety Silver S20

1.2 RELATED SECTIONS

- A. Section 08500 - Windows; windows to receive architectural window film.

1.3 REFERENCES

- A. ANSI Z97.1 - American National Standard for Safety Glazing Materials Used in Buildings - Safety Performance Specifications and Methods of Test.
- B. ASHRAE - American Society for Heating, Refrigeration, and Air Conditioning Engineers; Handbook of Fundamentals.
- C. ASTM International (ASTM):
 - 1. ASTM D 1044 - Standard Method of Test for Resistance of Transparent Plastics to Surface Abrasion (Taber Abrader Test).
 - 2. ASTM E 84 - Standard Method of Test for Surface Burning Characteristics of Building Materials.
 - 3. ASTM E 903 - Standard Methods of Test for Solar Absorbance, Reflectance and Transmittance of Materials Using Integrating Spheres.
 - 4. ASTM E 1886 - 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.
 - 5. ASTM E 1996 - Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors and Impact Protective Systems Impacted by Windborne Debris in Hurricanes.
 - 6. ASTM F1642 - Standard Method of Test for Glazing and Glazing Systems Subject to Airblast Loadings
 - 7. ASTM F2912 - Standard Specification for Glazing and Glazing Systems Subject to Airblast Loadings.
- D. Consumer Products Safety Commission 16 CFR, Part 1201 - Safety Standard for Architectural Glazing Materials.
- E. GSA-TS01 - Standard Test for Glazing and Glazing Systems Subject to Airblast Loadings.
- F. NFRC 100/200 (Formerly ASTM E903) - Standard Methods of Test for Solar Absorbance, Reflectance and Transmittance of Materials Using Integrating Spheres.

1.4 PERFORMANCE REQUIREMENTS

- A. Adhesion to Glass:
 - 1. Minimum 3 lbs/in peel strength per ASTM D3330 (Method A).
- B. Flammability: Surface burning characteristics when tested in accordance ASTM E 84, demonstrating film applied to glass rated Class A for Interior Use:
 - 1. Flame Spread Index: no greater than 25.
 - 2. Smoke Developed Index: no greater than 55.
- C. Abrasion Resistance:
 - 1. Film shall have a surface coating that is resistant to abrasion such that a nominal 3 percent increase of transmitted light haze will result when tested in accordance to ASTM D

1044 using 100 cycles, 500 grams weight, and the CS10F Calibrase Wheel.

- D. UV Light Rejection:
 - 1. Minimum of 99 percent UV light rejection (300 - 380 nm) per ASTM E903, as determined with film applied on 1/4 inch clear glass.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's current technical literature on each product to be used, including:
 - 1. Manufacturer's Data Sheets.
 - 2. Preparation instructions and recommendations.
 - 3. Storage and handling requirements and recommendations.
 - 4. Installation methods.
- C. 3rd Party Test Report Submittal Requirements. Submit the following 3rd Party test reports indicating compliance with the test values listed in this section.
 - 1. Flammability Testing, ASTM E84.
 - 2. Safety Glazing Impact Testing, ANSI Z97.1 and 16 CFR 1201.
- D. Verification Samples: For each film specified, two samples representing actual film color and pattern.
- E. Performance Submittals: Provide laboratory data of emissivity and calculated window U-Factors for various outdoor temperatures based upon established calculation procedure defined by the ASHRAE Handbook of Fundamentals, Chapter 29, or Lawrence Berkeley Laboratory Window 5.2 Computer Program.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: All primary products specified in this section will be supplied by a single manufacturer with a minimum of ten years' experience.
 - 1. Provide documentation that the adhesive used on the specified films is a Pressure Sensitive Adhesive (PSA).
- B. Installer Qualifications: All products listed in this section are to be installed by a single installer with a minimum of five years demonstrated experience in installing products of the same type and scope as specified.
 - 1. Provide documentation that the installer is authorized by the Manufacturer to perform Work specified in this section.
 - 2. Provide a commercial building reference list of 5 properties where the installer has applied window film. This list will include the following information:
 - a. Name of building.
 - b. The name and telephone number of a management contact.
 - c. Type of glass.
 - d. Type of film and/or film attachment system.
 - e. Amount of film and/or film attachment system installed.
 - f. Date of completion.
 - 3. Provide a Glass Stress Analysis of the existing glass and proposed glass/film combination as recommended by the film manufacturer.
- C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1. Finish areas designated by Architect.
 - 2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
 - 3. Refinish mock-up area as required to produce acceptable work.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Follow Manufacturer's instructions for storage and handling.
- B. Store products in manufacturer's unopened packaging until ready for installation.
- C. Store and dispose of hazardous materials, and materials contaminated by hazardous materials, in accordance with requirements of local authorities having jurisdiction.

1.8 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.

1.9 WARRANTY

- A. At project closeout, provide to Owner or Owners Representative an executed current copy of the manufacturer's standard limited warranty against manufacturing defect, outlining its terms, conditions, and exclusions from coverage.
- B. In order to validate warranty, installation must be performed by an Authorized 3M dealer and according to Manufacturer's installation instructions. Verification of Authorized 3M dealer can be confirmed by submission of active 3M dealer code number.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: 3M Commercial Solutions, which is located at: 3M Center Bldg. 220-12-E-04; St. Paul, MN 55144-1000; Toll Free Tel: 888-650-3497; Tel: 651-737-1081; Fax: 651 737 8241; Email: 3mredinsidesales@mmm.com;
Web: http://www.3m.com/3M/en_US/architectural-design-us/?utm_medium=redirect&utm_source=vanity-url&utm_campaign=www.3M.com/AMD|http://www.3m.com/3M/en_US/building-window-solutions-us
- B. Substitutions: Not permitted.

2.2 SAFETY AND SECURITY WINDOW FILM WITH SUN CONTROL

- A. 3M Safety Silver S20. Highly reflective polyester film, nominally 8 mils (0.008") thick, with a durable abrasion resistant coating over one surface and a pressure sensitive adhesive on the other. The film is comprised of an optically clear safety film laminated to a metallized film layer for reflective and sun control properties. The adhesive is pressure-activated, not water-activated, and forms a physical bond, not chemical bond, to the glass.
 - 1. Physical / Mechanical Performance Properties (nominal):
 - a. Film Color: Silver reflective.
 - b. Film Thickness (excluding coatings or adhesive liner): Nominal 8 mils.
 - c. Tensile Strength: 20,000 psi (MD) / 30,000 psi (TD).
 - d. Break Strength: 160 lb/in (MD) / 247 lb/in (TD).
 - e. Percent Elongation at Break: 95 percent (MD) / 76 percent (TD).
 - f. Yield Strength: 15,000 psi.
 - g. Percent Elongation at Yield: 7 percent.
 - 2. Uniformity: No noticeable pin holes, streaks, thin spots, scratches, banding or other optical defects.
 - 3. Variation in Total Transmission across the width: Less than 2 percent over the average at any portion along the length.
 - 4. Identification: Labeled as to Manufacturer as listed in this Section.
 - 5. Solar Performance Properties: Film applied to 1/4 inch (6 mm) thick clear glass (NFRC 100/200).
 - a. Visible Light Transmission: 18 percent.

- b. Visible Reflection: 61 percent.
- c. Ultraviolet Transmission: Not more than 1 percent.
- d. Solar Heat Gain Coefficient: 0.25.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Film Examination:
 - 1. If preparation of glass surfaces is the responsibility of another installer, notify Architect in writing of deviations from manufacturer's recommended installation tolerances and conditions.
 - a. Glass surfaces receiving new film should first be examined to verify that they are free from defects and imperfections, which will affect the final appearance.
 - 2. Do not proceed with installation until glass surfaces have been properly prepared and deviations from manufacturer's recommended tolerances are corrected. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result under the project conditions.
 - 3. Commencement of installation constitutes acceptance of conditions.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Refer to Manufacturer's installation instructions for methods of preparation for Impact Protection Adhesive or Impact Protection Profile film attachment systems.

3.3 INSTALLATION

- A. Film Installation, General:
 - 1. Install in accordance with manufacturer's instructions.
 - 2. Cut film edges neatly and square at a uniform distance of 1/8 inch (3 mm) to 1/16 inch (1.5 mm) of window sealant. Use new blade tips after 3 to 4 cuts.
 - 3. Spray the slip solution, composed of one capful of baby shampoo or dishwashing liquid to 1 gallon of water, on window glass and adhesive to facilitate proper positioning of film.
 - 4. Apply film to glass and lightly spray film with slip solution.
 - 5. Squeegee from top to bottom of window. Spray slip solution to film and squeegee a second time.
 - 6. Bump film edge with lint-free towel wrapped around edge of a 5-way tool.
 - 7. Upon completion of film application, allow 30 days for moisture from film installation to dry thoroughly, and to allow film to dry flat with no moisture dimples when viewed under normal viewing conditions.
 - 8. If completing an exterior application, check with the manufacturer as to whether edge sealing is required.

3.4 CLEANING AND PROTECTION

- A. Remove left over material and debris from Work area. Use necessary means to protect film before, during, and after installation.
- B. Touch-up, repair or replace damaged products before Substantial Completion.
- C. After application of film, wash film using common window cleaning solutions, including ammonia solutions, 30 days after application. Do not use abrasive type cleaning agents and bristle brushes to avoid scratching film. Use synthetic sponges or soft cloths.

END OF SECTION 088700

SECTION 096519 - RESILIENT FLOORING**PART 1 GENERAL**

- 1.1 SECTION INCLUDES
 - A. Resilient base.
- 1.2 SUBMITTALS
 - A. Product Data: Provide data on specified products, describing physical characteristics; sizes, patterns and colors available.
 - B. Samples: Submit one sample, illustrating color and pattern for each floor material.
 - C. Manufacturer's Installation Instructions: Indicate special procedures, perimeter conditions requiring special attention, and seaming recommendations.
- 1.3 QUALIFICATIONS
 - A. Installer: Company specializing in performing the Work of this section with minimum five years documented experience.
- 1.4 REGULATORY REQUIREMENTS
 - A. Conform to code for flame/smoke rating requirements in accordance with ASTM E84.
- 1.5 DELIVERY, STORAGE, AND HANDLING
 - A. Deliver, store, handle, and protect materials from damage.
- 1.6 ENVIRONMENTAL REQUIREMENTS
 - A. Store materials for three days prior to installation in area of installation to achieve temperature stability.
 - B. Maintain ambient temperature required by adhesive manufacturer three days prior to, during, and 24 hours after installation of materials.
- 1.7 MAINTENANCE DATA
 - A. Maintenance Data: Include maintenance procedures, recommended maintenance materials, and suggested schedule for cleaning, stripping, and re-waxing.
- 1.8 EXTRA MATERIALS
 - A. Provide 10 lineal feet of each base material specified.

PART 2 PRODUCTS

- 2.1 MATERIALS - BASE
 - A. Base: FS SS-W-40. Rubber; coved:
 - 1. Height: 4 inch
 - 2. Thickness: 1/8 inch thick
 - 3. Length: Rolls. Strips not allowed.
 - 4. Manufacturer:
 - a) **Johnsonite, Toast 238**
- 2.3 ACCESSORIES
 - A. Subfloor Filler: White premix latex; type recommended by adhesive material manufacturer.
 - B. Primers and Adhesives: Waterproof; types recommended by flooring manufacturer.
 - C. Edge Strips: Rubber.

PART 3 EXECUTION

- 3.1 PREPARATION
 - A. Clean substrate.
 - B. Apply primer as recommended by manufacturer.
- 3.2 INSTALLATION - BASE
 - A. Fit joints tight and vertical. Maintain minimum measurement of 18 inches between joints.
 - B. Miter internal corners. At external corners, "V" cut back of base strip to 2/3 of its thickness and fold. At exposed ends, jobsite fabricate corners in accordance with manufacturer's instructions.
 - C. Install base on solid backing. Bond tight to wall and floor surfaces.
 - D. Scribe and fit to door frames and other interruptions.
 - E. Use longest lengths possible to minimize joints and do not use pieces less than 12 inches in length.

- 3.3 CLEANING
 - A. Clean all work as described in the General Requirements.
 - B. Remove excess adhesive from floor, base, and wall surfaces without damage.
- 3.4 PROTECTION OF FINISHED WORK
 - A. Protect finished Work.

END OF SECTION 096519

SECTION 096813 - TILE CARPETING**PART 1 GENERAL**

- 1.01 SECTION INCLUDES
- A. Carpet placed with glue down method.
 - B. Accessories.
- 1.02 SUBMITTALS
- A. Product Data: Provide data on specified products, describing physical and performance characteristics; sizes, patterns, colors available, and method of installation.
 - B. Samples: Submit two samples illustrating color and pattern for each carpet material specified.
 - C. Submit two samples of edge strip, material for each color specified.
 - D. Manufacturer's Installation Instructions: Indicate special procedures, perimeter conditions requiring special attention.
- 1.03 QUALIFICATIONS
- A. Manufacturer: Company specializing in manufacturing specified carpet with minimum five years documented experience.
 - B. Installer: Company specializing in installing carpet with minimum five years documented experience, approved by manufacturer, and preapproved by architect 20 days prior to bid.
- 1.04 ENVIRONMENTAL REQUIREMENTS
- A. Store materials for 3 days prior to installation in area of installation to achieve temperature stability.
 - B. Maintain minimum 70 degrees F ambient temperature 1 day prior to, during and 24 hours after installation.
- 1.05 MAINTENANCE DATA
- A. Maintenance Data: Include maintenance procedures, recommended maintenance materials, and suggested schedule for cleaning.
- 1.06 EXTRA MATERIAL
- A. Provide 120 sq. ft. of carpeting of each type, color, and pattern specified. Must be full/uncut tiles and/or full width pieces.

PART 2 PRODUCTS

- 2.01 MANUFACTURERS – CARPETING
- A. **Patcraft, Orbital, Modern 00550, 24"x24" tile, quarter turn installation.**
- 2.02 ACCESSORIES
- A. Sub-Floor Filler: White premix latex; type recommended by adhesive material manufacturer.
 - B. Adhesive: **High moisture type**, compatible with carpet material and as recommended by carpet manufacturer.
 - C. Edge Strips: Type, finish, color as selected.

PART 3 EXECUTION

- 3.01 TESTING OF CONCRETE SUBSTRATE
- The following method shall be used to determine moisture content of slab at time of application. Three tests for the first 1,000 s.f. shall be completed at the area where highest moisture levels are suspected. One test for each additional 1,000 s.f. shall be completed throughout the remainder of the addition and remodeled areas. This test only measure the specific area tested at the time of the test and are not predictors of future substrate conditions.
- A. ASTM F-2170 in site Relative Humidity Test. Follow test procedures of manufacturer of testing equipment. Reading should be below 80%. If above 80%, use the next test method below. (Only if space is conditioned.)
 - 1. ASTM F-1869 Calcium Chloride Moisture Vapor Transmission Test. Follow test procedures of manufacturers of MVT kits. Results should be below 3 to 4 lbs/1,000 square feet/24 hours.
- 3.02 PREPARATION
- A. Remove subfloor ridges and bumps. Fill minor or local low spots, cracks, joints, holes, and other defects with subfloor filler.
 - B. Apply, trowel, and float filler to achieve smooth, flat, hard surface. Prohibit traffic until filler is cured.
 - C. Vacuum clean substrate.

3.03 INSTALLATION

- A. Apply carpet and adhesive in accordance with manufacturer's instructions.
- B. Verify carpet match before cutting to ensure minimal variation between dye lots.
- C. Double cut carpet, to allow intended seam and pattern match. Make cuts straight, true, and unfrayed. Edge seam carpet at traffic areas.
- D. Locate seams in area of least traffic.
- E. Join seams by hot adhesive tape method. Form seams straight, not overlapped or peaked, and free of gaps.
- F. Lay carpet tight and flat on subfloor, well fastened at edges, with a uniform appearance. Provide monolithic color, pattern, and texture match within any one area.
- G. Do not change run of pile in any room where carpet is continuous through a wall opening into another room. Locate change of color or pattern between rooms under door centerline.
- H. Cut and fit carpet around interruptions.
- I. Bind cut edges where not concealed by edge strips.
- J. Fit carpet tight to intersection with vertical surfaces without gaps.
- K. Where wall bases are scheduled, cut carpet tight to walls. Fit carpet tight to vertical interruptions, leaving no gaps.

3.04 CLEANING

- A. Remove excess adhesive without damage, from floor, base, and wall surfaces.
- B. Clean and vacuum carpet surfaces.

END OF SECTION 096813

SECTION 099000 - PAINTING**PART 1 GENERAL**

1.01 SECTION INCLUDES

- A. Surface preparation and field application of paints and coatings.

1.02 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing the Products specified in this section with minimum three years documented experience.
- B. Applicator: Company specializing in performing the work of this section with minimum years documented experience and approved by manufacturer.

1.03 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect, and handle products to site.
- B. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
- C. Container label to include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
- D. Store paint materials at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.

1.04 ENVIRONMENTAL REQUIREMENTS

- A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
- B. Do not apply exterior coatings during rain or snow, or when relative humidity is outside the humidity ranges required by the paint product manufacturer.
- C. Minimum Application Temperatures for Latex Paints: 45 degrees F for interiors; 50 degrees F for exterior; unless required otherwise by manufacturer's instructions.
- D. Minimum Application Temperature for Varnish and Finishes: 65 degrees F for interior or exterior, unless required otherwise by manufacturer's instructions.
- E. Provide lighting level of 80 foot candles measured mid-height at substrate surface.

1.05 EXTRA MATERIALS

- A. Provide one gallon of each color to owner.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Manufacturer - Paint, Transparent Finishes, Stain, Primer Sealers, and Block Filler by SHERWIN-WILLIAMS or as approved equal.

2.02 MATERIALS

- A. Coatings: Ready mixed, except field catalyzed coatings. Process pigments to a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating; good flow and brushing properties; capable of drying or curing free of streaks or sags.
- B. Accessory Materials: Linseed oil, shellac, turpentine, paint thinners, and other materials not specifically indicated but required to achieve the finishes specified, of commercial quality.
- C. Patching Materials: Latex filler.
- D. Fastener Head Cover Materials: Latex filler.

2.03 FINISHES

- A. Refer to schedule at end of section for surface finish schedule.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces and substrate conditions are ready to receive work as instructed by the product manufacturer.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.
- C. Test shop applied primer for compatibility with subsequent cover materials.

3.02 PREPARATION

- A. Remove or mask electrical plates, hardware, light fixture trim, escutcheons, and fittings prior to preparing surfaces or finishing.
- B. Correct defects and clean surfaces which affect work of this section. Remove existing coatings that exhibit loose surface defects.

- C. Seal with shellac and seal marks which may bleed through surface finishes.
 - D. Impervious Surfaces: Remove mildew by scrubbing with solution of trisodium phosphate and bleach. Rinse with clean water and allow surface to dry.
 - E. Aluminum Surfaces Scheduled for Paint Finish: Remove surface contamination by steam or high pressure water. Remove oxidation with acid etch and solvent washing. Apply etching primer immediately following cleaning.
 - F. Asphalt, Creosote, or Bituminous Surfaces Scheduled for Paint Finish: Remove foreign particles to permit adhesion of finishing materials. Apply compatible sealer or primer.
 - G. Insulated Coverings: Remove dirt, grease, and oil from canvas and cotton.
 - H. Concrete Floors: Remove contamination, acid etch, and rinse floors with clear water. Verify required acid-alkali balance is achieved. Allow to dry.
 - I. Copper Surfaces Scheduled for a Paint Finish: Remove contamination by steam, high pressure water, or solvent washing. Apply vinyl etch primer immediately following cleaning.
 - J. Copper Surfaces Scheduled for a Natural Oxidized Finish: Remove contamination by applying oxidizing solution of copper acetate and ammonium chloride in acetic acid. Rub on repeatedly for required effect. Once attained, rinse surfaces with clear water and allow to dry.
 - K. Gypsum Board Surfaces: Fill minor defects with filler compound. Spot prime defects after repair.
 - L. Galvanized Surfaces: Remove surface contamination and oils and wash with solvent. Apply coat of etching primer.
 - M. Concrete and Unit Masonry Surfaces Scheduled to Receive Paint Finish: Remove dirt, loose mortar, scale, salt or alkali powder, and other foreign matter. Remove oil and grease with a solution of trisodium phosphate; rinse well and allow to dry. Remove stains caused by weathering of corroding metals with a solution of sodium metasilicate after thoroughly wetting with water. Allow to dry.
 - N. Plaster Surfaces: Fill hairline cracks, small holes, and imperfections with latex patching plaster. Make smooth and flush with adjacent surfaces. Wash and neutralize high alkali surfaces.
 - O. Uncoated Steel and Iron Surfaces: Remove grease, mill scale, weld splatter, dirt, and rust. Where heavy coatings of scale are evident, remove by hand, power tool wire brushing or sandblasting; clean by washing with solvent. Apply a treatment of phosphoric acid solution, ensuring weld joints, bolts, and nuts are similarly cleaned. Spot prime paint after repairs.
 - P. Shop Primed Steel Surfaces: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces.
 - Q. Interior Wood Items Scheduled to Receive Paint Finish: Wipe off dust and grit prior to priming. Seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after primer has dried; sand between coats.
 - R. Interior Wood Items Scheduled to Receive Transparent Finish: Wipe off dust and grit prior to sealing, seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after sealer has dried; sand lightly between coats.
 - S. Exterior Wood Scheduled to Receive Paint Finish: Remove dust, grit, and foreign matter. Seal knots, pitch streaks, and sappy sections. Fill nail holes with tinted exterior caulking compound after prime coat has been applied.
 - T. Exterior Wood Scheduled to Receive Transparent Finish: Remove dust, grit, and foreign matter; seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes with tinted exterior caulking compound after sealer has been applied.
 - U. Glue-Laminated Beams: Prior to finishing, wash surfaces with solvent, remove grease, and dirt.
 - V. Wood and Metal Doors Scheduled for Painting: Seal top and bottom edges with primer.
- 3.03 APPLICATION
- A. Apply products in accordance with manufacturer's instructions.
 - B. Do not apply finishes to surfaces that are not dry.
 - C. Apply each coat to uniform finish.
 - D. Apply each coat of paint slightly darker than preceding coat unless otherwise approved.
 - E. Sand wood and metal lightly between coats to achieve required finish.
 - F. Vacuum clean surfaces free of loose particles. Use tack cloth just prior to applying next coat.
 - G. Allow applied coat to dry before next coat is applied.
 - H. Where clear finishes are required, tint fillers to match wood. Work fillers into the grain before set. Wipe excess from surface.
 - I. Prime concealed surfaces of interior and exterior woodwork with primer paint.
 - J. Prime concealed surfaces of interior woodwork scheduled to receive stain or varnish finish with gloss varnish reduced 25 percent with mineral spirits.
- 3.04 FINISHING MECHANICAL AND ELECTRICAL EQUIPMENT
- A. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.
 - B. Prime and paint insulated and exposed pipes, conduit, boxes, insulated and exposed ducts, hangers, brackets, collars, and supports except where items are prefinished.
 - C. Paint interior surfaces of air ducts, and convector and baseboard heating cabinets that are visible through grilles and louvers with one coat of flat black paint, to visible surfaces. Paint dampers exposed behind louvers, grilles, and convector and baseboard cabinets to match face panels.

- D. Paint exposed conduit and electrical equipment occurring in finished areas.
- E. Paint both sides and edges of plywood backboards for electrical and telephone equipment before installing equipment.
- F. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

3.05 CLEANING

- A. Collect waste material which may constitute a fire hazard, place in closed metal containers and remove daily from site.

3.06 SCHEDULE

The following are for exterior and interior surfaces, and are all products of Sherwin-Williams. Quantity of coats listed is the minimum number, contractor is responsible to provide as many coats as necessary for full and complete coverage.

INTERIOR SURFACES

1. GYPSUM WALLBOARD

- A. Painted (Satin Finish/Epoxy Base)
 - 1st Coat: Pro Industrial Pre-Catalyzed Water Based Epoxy, Satin
 - 2nd Coat: Pro Industrial Pre-Catalyzed Water Based Epoxy, Satin

2. FERROUS METAL (HOLLOW METAL DOORS & FRAMES)

- A. Painted (Gloss Finish/Epoxy Base)
 - 1st Coat: Pro Industrial Zero VOC Water Based Epoxy, Satin
 - 2nd Coat: Pro Industrial Zero VOC Water Based Epoxy, Satin

3. CONCRETE FLOORS (SEALED)

- A. Painted (Clear Acrylic Gloss Floor Finish)
 - 1st Coat: 10.000004 - H&C Silicone Acrylic Concrete Sealer Clear
 - 2nd Coat: 10.000004 - H&C Silicone Acrylic Concrete Sealer Clear

4. EXPOSED STEEL BAR JOIST MEMBERS AND WOOD CEILING PANELS

- A. Painted Water-Based Light Industrial Coating System MPI INT 5.1B
 - Prime Coat: Primer, rust-inhibitive, water-based acrylic, for metal, MPI 107
S-W Pro-Industrial Procryl Universal Primer **Dryfall**, B66-310 Series.
 - Intermediate Coat: Acrylic, interior, matching topcoat.
 - Topcoat: Acrylic, light industrial coating, water-based, semigloss (MPI Gloss Level 5), MPI 153.
S-W Pro-Industrial High-Performance Acrylic **Dryfall**, semigloss, B66-600 Series.

END OF SECTION 099000

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SECTION 101400 - SIGNS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following:
 - 1. Interior Accessibility signs.
 - 2. Interior Room signs.

1.2 SUBMITTALS

- A. Product Data: Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of sign.
- B. Shop Drawings: Include plans, elevations, and large-scale sections of typical members and other components. Show mounting methods, grounds, mounting heights, layout, spacing, reinforcement, accessories, and installation details.
 - 1. Provide message list for each sign, including large-scale details of wording, lettering, and braille layout.
- C. Samples for Initial Selection: For each type of sign material indicated that involves color selection.
- D. Samples for Verification: For each type of sign, include the following Samples to verify color selected:
 - 1. Panel Signs: Full-size Samples of each type of sign required.
 - 2. Dimensional Characters: Full-size Samples of each type of dimensional character (letter and number) required. Show character style, material, finish, and method of attachment.
 - 3. Casting: Show representative texture, character style, spacing, finish, and method of attachment.
- E. Maintenance Data: For signage cleaning and maintenance requirements to include in maintenance manuals.

1.3 QUALITY ASSURANCE

- A. Source Limitations: Obtain each sign type through one source from a single manufacturer.
- B. Regulatory Requirements: Comply with the Americans with Disabilities Accessibilities Act Guidelines (ADAAG) and with code provisions as adopted by authorities having jurisdiction.
 - 1. Interior Code Signage: Provide signage as required by accessibility regulations and requirements of authorities having jurisdiction. These include, but are not limited to, the following:
 - a. Signs for Accessible Spaces:

1.4 PROJECT CONDITIONS

- A. Field Measurements: Where sizes of signs are determined by dimensions of surfaces on which they are installed, verify dimensions by field measurement before fabrication, and indicate measurements on Shop Drawings.

1.5 COORDINATION

- A. For signs supported by or anchored to permanent construction, advise installers of anchorage devices about specific requirements for placement of anchorage devices and similar items to be used for attaching signs.
 - 1. For signs supported by or anchored to permanent construction, furnish templates for installation of anchorage devices.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply for product selection:
1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the manufacturers specified.

2.2 PANEL SIGNS

- A. General: Provide panel signs that comply with requirements indicated for materials, thicknesses, finishes, colors, designs, shapes, sizes, and details of construction.
1. Produce smooth panel sign surfaces constructed to remain flat under installed conditions within tolerance of plus or minus 1/16 inch (1.5 mm) measured diagonally.
- B. Tactile and Braille Copy: Manufacturer's standard process for producing copy complying with ADAAG and ICC/ANSI A117.1. Text shall be accompanied by Grade 2 braille. Produce precisely formed characters with square cut edges free from burrs and cut marks.
- C. **Interior Restroom signs: Install Handicap signage per ADAAG at all restrooms. Two signs total. Signs shall be as per Vista System, V200 series. Sign mounts flat to wall with double stick foam tape. 1/16" matte clear acrylic with clear acrylic top and bottom caps. Background color to be selected from manufacturer's full range. Raised lettering with braille. Accessibility and gender symbol (Men and Women, one sign each). Reference drawings for additional information. Submit shop drawings to architect for approval prior to ordering.**
- D. **Interior Office signs: Install signage per ADAAG at all offices. Signs shall be as per Vista System, V200 series. Sign mounts flat to wall with double stick foam tape. 1/16" matte clear acrylic with clear acrylic top and bottom caps. Background color to be selected from manufacturer's full range. Raised room number with braille. Clear plastic slot for owner-typed room name paper insert. Reference drawings for additional information. Submit shop drawings to architect for approval prior to ordering.**
- E. **All Other Interior signs: Install signage per ADAAG at all rooms. Signs shall be as per Vista System, V200 series. Sign mounts flat to wall with double stick foam tape. 1/16" matte clear acrylic with clear acrylic top and bottom caps. Background color to be selected from manufacturer's full range. Raised room number and room name with braille. Reference drawings for additional information. Submit shop drawings to architect for approval prior to ordering.**

2.3 ACCESSORIES

- A. Mounting Methods for interior signage: Use concealed fasteners double-sided vinyl tape silicone adhesive fabricated from materials that are not corrosive to sign material and mounting surface.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work.
- B. Verify that items, including anchor inserts provided under other sections of Work are sized and located to accommodate signs.
- C. Examine supporting members to ensure that surfaces are at elevations indicated or required to comply with authorities having jurisdiction and are free from dirt and other deleterious matter.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. General: Locate signs and accessories where indicated, using mounting methods of types described and in compliance with manufacturer's written instructions.
 - 1. Install signs level, plumb, and at heights indicated, with sign surfaces free from distortion and other defects in appearance.
 - 2. Interior Wall Signs: Install signs on walls adjacent to latch side of door where applicable. Reference drawings for additional information.
- B. Wall-Mounted Panel Signs: Attach panel signs to wall surfaces using methods indicated below:
 - 1. Vinyl-Tape Mounting: Use double-sided foam tape to mount signs to smooth, nonporous surfaces. Do not use this method for vinyl-covered or rough surfaces.

3.3 CLEANING AND PROTECTION

- A. After installation, clean soiled sign surfaces according to manufacturer's written instructions. Protect signs from damage until acceptance by Owner.

END OF SECTION 101400

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SECTION 102213 - WIRE MESH PARTITIONS**PART 1 GENERAL**

1.1 SECTION INCLUDES

- A. Wire mesh partitions for:
 - 1. 10 foot tall x 8 foot deep storage compartments with sliding doors.

1.2 SUBMITTALS

- A. Submit under provisions of Section 013000.
- B. Product Data: Manufacturer's printed data on products to be furnished.
- C. Shop Drawings: Complete layout and fabrication drawings.
- D. Samples: Finish color samples for selection.
- E. Keys: Turn over keys for door locks to Owner at completion of project.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. Acceptable Manufacturer: WireCrafters, LLC; 6208 Strawberry Lane, Louisville, KY 40214-2900. ASD. Tel: (800) 626-1816 or (502) 363-6691. Fax: (502) 361-3857. www.wirecrafters.com Email: info@wirecrafters.com
- B. Requests for substitutions will be considered in accordance with provisions of Section 016000.

2.2 PARTITIONS

- A. Wire Mesh Partitions: Factory-assembled modular sized panels stacked between post uprights, complete with all components, accessories, hardware, and fasteners; interchangeable units that allow expansion without waste of components.
 - 1. Style: Full mesh.
 - 2. Post Spacing: As required to suit specified dimensions, using manufacturer's standard and custom panel widths.
 - 3. Panel frames bolted together and to posts.
 - 4. Wire mesh at all open sides, front and top/ceiling. Wire mesh also to be wrap down approximately 24 inches on the back/rear wall side.
 - 5. Toe Space - Storage Compartments: 3-1/4 inch (82 mm) high open space below bottom panel.
 - 6. Provide ceiling panels throughout.
 - 7. Finish: Electrostatic sprayed enamel, in manufacturer's standard color (gray enamel).
- B. Posts: Square 2 by 2 inch (50 by 50 mm) 14 gauge steel tube.
 - 1. Factory drilled holes for attaching panels.
 - 2. Welded-on base plate, 2 by 7 by 1/4 inch (50 by 178 by 6 mm), with factory drilled holes for floor anchors.
 - 3. Decorative plastic post cap.
 - 4. Corner Posts: Same as in-line posts.
 - 5. Provide appropriate hardware for attaching panels to posts and posts to floor.

- C. Wire Mesh Panels: Steel angle frames with wire mesh securely welded in place; frame joints coped at corner and securely welded; factory drilled holes for fasteners.
 - 1. Wire Mesh: 10 gauge, 0.135 inch (3.5 mm) steel wire woven into 2 by 1 inch (50 by 25 mm) rectangular mesh.
 - 2. Frame: 1-1/4 by 1-1/4 by 1/8 inch (32 by 32 by 3 mm) hot rolled steel angle.
 - 3. Vertical Panel Stiffeners: 1/4 by 3/4 inch (6 by 19 mm) steel bar securely welded to frame behind mesh on panels 4 feet (1219 mm) or wider.
 - 4. Ceiling Panels: Same as wall panels; provide supplemental support where required by span.
- D. Door Sections: Matching wire mesh panels.
 - 1. Frame: 1-1/4 by 1-1/4 by 1/8 inch (32 by 32 by 3 mm) hot rolled steel angle.
 - 2. Stiffeners: Two horizontal and one vertical stiffener of 1/4 by 3/4 inch (6 by 19 mm) flat hot rolled steel bar.
 - 3. Sliding Doors:
 - a. Width: 48 inches (1220 mm). Reference drawings for locations of double sliders.
 - b. Door Opening Height: 84 inches minimum.
 - d. Door Hangers: Two 4-wheel roller bearing hangers at each door leaf.
 - e. Track: Box track, twice the width of door panel.
 - f. Floor mounted bottom guide/keeper.
 - 4. **Locking: Keyed levers with removeable Best cores. Keyed alike. Coordinate with KSARNG.**

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Install plumb, level, and securely anchored to floor and cmu wall.
- C. Adjust doors for smooth, easy operation.

END OF SECTION 102213