



Switchgear Replacement

HARTFORD, CT - P&DC 141 Weston Street Hartford, CT
06101-9612

Solicitation Number: 089495-22-A-0023

Proposal Due: 03/17/2022 03:00 PM EST

Project Number: B43529

Issued By:
REPAIR AND ALTERATION EAST
6 GRIFFIN RD N
WINDSOR, CT 06095-1666

* A pre-proposal meeting will be held on site on March 3, 2022 at 10am (local time).

** All proposals must be submitted via USPS eSourcing portal Coupa.



Solicitation Fixed Price Construction

1. Solicitation Number: 089495-22-A-0023

Project Number: B43529

2. Solicitation Information

a. Issue Date: Tuesday 02/15/2022
b. Return Date: Thursday 03/17/2022
c. Return Time: 03:00 PM EST
d. Contact: JOHN E FLYNN III
e. Telephone: 860-752-9427
f. Email Address: JFlynn153@Gmail.com

g. Return to address:

JENNIFER SANTIAGO
6 GRIFFIN ROAD NORTH

WINDSOR, CT 06006-7003
Jennifer.Santiago@usps.gov

Please use the Postal Service for your correspondence.

3. Issued by:

REPAIR AND ALTERATION EAST
6 GRIFFIN RD N
WINDSOR, CT 06095-1666

4. Project Name and Location:

Switchgear Replacement
HARTFORD, CT - P&DC
141 Weston Street
Hartford, CT 06101-9612

5. Sealed offers (in 1 original and 1 signed copy) for furnishing the supplies or services described in this solicitation will be received at the place specified in 2g until the date and time (local time of the place specified) shown in block 2. All offers are subject to the provisions, representations, certifications, specifications and contract clauses which follow or which are incorporated by reference, whether or not all of such attached pages are returned with the offer.

6. Notes to offerors:

****ALL PROPOSALS MUST BE SUBMITTED THROUGH COUPA USPS eSOURCING****

Proposals are requested for a Switchgear Replacement project, at USPS owned Hartford P&DC, 141 Weston Street, Hartford, CT 06101-9613, Hartford County. Work will be completed in accordance with the attached specifications, drawings and other solicitation documents.

An award for this requirement is contingent upon funding approval which is anticipated to be received during the evaluation phase of this project. Estimated cost of the work is between \$4,000,000 and \$5,000,000; with construction completion no later than two hundred eighty (280) calendar days after receipt of the Notice to Proceed.

A pre-proposal meeting for this project will be held on March 3, 2022 at 10:00am (local time), on site. Attendance is not mandatory but is strongly recommended. On-site visits may be arranged by contacting Peter Jarzynski, Manager Maintenance Engineering, at (860) 524-6248; Al Betournay, Manager Maintenance, at (860) 710-7337 or Robert Wanat, Safety Specialist, at (203) 782-7369. Technical inquiries are to be addressed to Project Architect-Engineer Chris Defilippo, McKinnell McKinnell & Taylor, at (781) 878-6223, or the USPS Project Manager, John Flynn at (603) 665-7911.

Requests for Information (RFI) must be submitted to Project Architect-Engineer Chris Defilippo, McKinnell McKinnell & Taylor, at CDeFilippo@mm-t.com by 3:00 p.m., March 7, 2022. Responses are expected to be issued by March 11, 2022.

The Postal Service bases contract award decisions on best value. Offerors should review the entire solicitation to ensure the requirements are understood.

7. Acceptance: In compliance with this solicitation the undersigned offers and agrees, if this offer is accepted within 120 calendar days (60 calendar days unless a different period is inserted by the offeror) from the solicitation return date, to furnish any or all items upon which prices are offered at the same price set opposite each item, delivered at the designated point(s), within the time(s) specified in the solicitation.

Note: Offers must set forth full, accurate, and complete information as required by this solicitation (including attachments). The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

eDCCSSOL, Fixed Price Const, March 2004, Version 1.0.0



**SOLICITATION - FIXED PRICE CONSTRUCTION
NOTES TO OFFERORS - Continuation (Pg. 1)**

Solicitation Number: 089495-22-A-0023

Project Number: B43529

The USPS is concerned with making an award to the supplier striking the appropriate balance of technical features and price. The USPS will not, however, make award to a higher priced offer which provides only marginal additional technical value. As technical scores become closer, then price becomes more important as to selection. However, the USPS may not necessarily make an award at the lowest price in order to achieve a small price savings if better value can be achieved with superior technical features.

MINIMUM REQUIREMENTS:

Technical Evaluation Plan (1 pdf file): Include items listed under Attachment 11, Proposal Instructions and Evaluation Criteria. The Technical Evaluation Plan will be assessed per the scoring breakdown on Attachment 11.

Price Proposal (1 pdf file): Signed Offer and Award (Page 1), Schedule of Values (see eRFx Excel Attachment), Schedule of Unit Prices (**if applicable**), and Schedule of Alternates (**if applicable**).

Affirmation of Contract Terms & Conditions

Terms & Conditions: Acknowledgement of Solicitation Amendments (**if applicable**), Solicitation Provision F-202: Key Personnel; Provision 1-3: Domestic Source Certificate - Construction Materials; Provision 4-3: Representations and Certifications (Section A., B., E.); Provision 9-1: Equal Opportunity Affirmative Action Program; and Provision F-401: Authorized Negotiators.

Form VETS-4212 Documentation is required. If you are not registered with Department of Labor Report System, you must register on the DOL website at: <https://www.dol.gov/vets/vets4212.htm> and provide proof of registration.

Please Note:

Bonding: Contractor must have the ability to obtain 100 percent performance and payment bonds for this project in seven (7) calendar days of receipt of a Notice of Intent to Award.

All projects are solicited and awarded as singular events. Awardees may have multiple projects in the construction phase at the same time and would be required to obtain full bonding for each project during the agreed upon construction period. Construction will not be delayed due to the inability to acquire and maintain bonding on multiple projects simultaneously.

Contractor will be responsible for coordination of all work in a manner that will not interfere with mail operations and coordinate all work related to this phased project with the Facility Manager or designee.

Successful offeror will be required to submit a Sub-Contracting Plan and a Project Specific Safety Plan acceptable to the USPS Contracting Officer before a Notice to Proceed (NTP) is issued.



Offer and Award Fixed Price Construction

Facility HARTFORD, CT - P&DC 141 Weston Street Hartford, CT 06101-9612		Project Switchgear Replacement	
1. Contract Number	2. Solicitation Number 089495-22-A-0023	3. Project # B43529	4. Socio/Economic
5.a. Issued by REPAIR AND ALTERATION EAST 6 GRIFFIN RD N WINDSOR, CT 06095-1666	5.b. For Information call (<i>No Collect Calls</i>) JOHN E FLYNN III 860-752-9427 phone / 860-285-7177 fax JFlynn153@Gmail.com		
6.a. Offeror/Contractor ,	b. Contact Name: c. Telephone No: d. Fax Number: e. Email Address f. TIN: g. Parent TIN Location:		
	TIN = Taxpayer Identification Number		
h. Remittance Name and/or Address: (if different from above)			
7. Delivery/Performance Requirements See Section B			
8. Items & Prices/General Description Requirement Switchgear Replacement project for USPS Hartford P&DC, 141 Weston Street, Hartford, CT 06101-9613, Hartford County. All construction documents have been reviewed and the base price as submitted is correct. The project will be completed in accordance with the specifications, drawings, and other data included in the solicitation.			
Total: \$ _____ in words _____ Performance Time in Calendar Days: 280			
9. Optional Provisions/Clauses listed below are applicable to this contract: B-44 Use of Premises B-59 Construction Progress Chart F-304 Scheduling and Security Requirements F-403 Protection and Damage End of list of clauses incorporated by reference			
10. Billing Instructions (Submit Invoices To) JOHN E FLYNN III 104 Chestnut Hill Rd.		Amherst, NH 03031-1519	
11. Contractor Signature:	Date:	12. US Postal Service Signature	Date:
Name of Person Authorized to sign		Name of Contracting Officer HELEN L HYNES	



U.S. POSTAL SERVICE CONSTRUCTION FIRM-FIXED-PRICE CONTRACT

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SECTION A: INSTRUCTIONS TO OFFERORS AND SOLICITATION

GENERAL INFORMATION

PROVISION 1-1: Supplier Clearance Requirements (March 2006)

The contract resulting from this solicitation will require the contractor or its employees (including subcontractors and their employees) to have access to occupied postal facilities, and/or to postal information and resources, including postal computer systems. Clearance in accordance with Administrative Support Manual 272.4 will be required before that access will be permitted. It is the contractor's obligation to obtain and supply to the Postal Service the forms and information required by that regulation.

Offerors must familiarize themselves with the requirements of that section, taking into account in their offices the time and paperwork associated with the screening.

PROVISION 1-4: Prohibition Against Contracting with Former Postal Service Officers or PCES Executives (March 2006)

The offeror represents that former Postal Service officers or Postal Career Executive Service (PCES) executives will not be employed as key personnel, experts or consultants in the performance of the contract if such individuals, within 1 year of their retirement from the Postal Service, will be performing substantially the same duties as they performed during their career with the Postal Service. In addition, no contract resulting from this solicitation may be awarded to such individuals or entities in which they have a substantial interest, for 1 year after their retirement from the Postal Service, if the work called for in the solicitation requires such individuals to perform substantially the same duties as they performed during their career with the Postal Service.

PROVISION 1-5: Proposed Use of Former Postal Service Employees (March 2006)

In its proposal, the supplier must identify any former Postal Service employee it proposes to engage, directly or indirectly, in the performance of the contract. The Postal Service reserves the right to require the supplier to replace the proposed individual with an equally qualified individual.

PROVISION 4-8: Pre-Proposal Conference (March 2006) Modified

- a. The Postal Service is planning a pre-proposal conference during which potential offerors may obtain a better understanding of the work required.
- b. Offerors are strongly urged to visit the site prior to the conference to inform themselves fully about the location and conditions under which the work is to be performed.
- c. Offerors are encouraged to submit all questions in writing at least 5 days before the conference. Questions will be considered at any time prior to or during the conference. Subsequent to the conference, the Postal Service will distribute to all conference participants and all other prospective offerors a record of the conference containing an abstract of the questions and answers, and a list of attendees. If warranted, an amendment will be issued to reflect changes to the solicitation.
- d. Offerors are cautioned that, notwithstanding any remarks or clarifications given at the conference or in the post-conference abstract, all terms and conditions of the solicitation remain unchanged unless changed by amendment.
- e. The conference will be held:

Date: Thu 03 March 2022

Time: 10:00 AM

Location: Hartford P&DC 141 Weston Street Hartford, CT 06101 *Face mask required.

PROVISION 7-1: Performance Bond Requirements (February 2018)

- a. Any offeror selected for award of a contract as a result of this solicitation will be required to submit a performance bond in a penal amount equal to 100 percent of the contract price, within the time specified by the contracting officer.
- b. The bond must be executed on the Postal Service forms attached to this solicitation, and sureties must be acceptable to the Postal Service. Corporate sureties must appear on the list in Treasury Circular 570, and the amount of the bond may not exceed the underwriting limit stated for the surety on that list.
- c. Contract award will not be made until both an executed performance and payment bonds (see Provision 7-2: Payment Bond Requirements) are received by the contracting officer.

PROVISION 7-2: Payment Bond Requirements (March 2006)



- a. Any offeror selected for award of a contract as a result of this solicitation will be required to submit a payment bond in the penal amount set forth in the Schedule, within the time required by the contracting officer.
- b. The bond must be executed on the Postal Service forms attached to this solicitation, and sureties must be acceptable to the Postal Service. Corporate sureties must appear on the list in Treasury Circular 570, and the amount of the bond may not exceed the underwriting limit stated for the surety on that list.
- c. Contract award will not be made until both an executed payment and performance bonds (see Provision 7-1: Performance Bond Requirements) are received by the contracting officer.

PROVISION 7-4: Deposit of Assets Requirements (March 2006)

- a. Except for payment bonds required for construction contracts, any offeror required to submit a surety bond as a result of this solicitation may instead deposit assets in a form acceptable to the Postal Service in an amount set forth in the Schedule.
- b. When assets are deposited, the offeror must execute the Postal Service bond form made a part of this solicitation. Failure to deposit assets acceptable to the Postal Service may be cause for termination of the contract for default.

PROVISION 9-3: Notice of Requirements for Equal Opportunity Affirmative Action (Fixed Price Construction) (March 2006)

- a. The offeror's attention is called to Clause 9-7: Equal Opportunity, and Clause 9-8: Affirmative Action Compliance Requirements for Construction.
- b. The goals for minority and female participation, expressed in percentage terms for the supplier's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Goals for minority participation for each trade: 6.9%

Goals for female participation for each trade: 5.6

c. These goals apply to all the supplier's construction work performed in the covered area. If the supplier performs construction work in a geographical area located outside the covered area, the supplier must apply the goals established for the geographical area where the work is actually performed. Goals are published periodically in the Federal Register in notice form, and these notices may be obtained from the Office of Federal Contract Compliance Programs (OFCCP).

d. The supplier's compliance with Executive Order 11246, as amended, and the regulations in 41 CFR 60-4 must be based on (1) its implementation of Clause 9-7: Equal Opportunity, (2) specific affirmative action obligations required by Clause 9-8: Affirmative Action Compliance Requirements for Construction, and (3) its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade. The supplier must make a good-faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from supplier to supplier, or from project to project, for the sole purpose of meeting the supplier's goals will be a violation of the contract, EO 11246, as amended, and the regulations in 41 CFR 60-4. Compliance with the goals will be measured against the total work hours performed.

e. The supplier must provide written notification to the Director, OFCCP, within 10 working days following award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification must list the:

- (1) Name, address, telephone number, and employer's identification number of the subcontractor;
- (2) Estimated dollar amount of the subcontract;
- (3) Estimated starting and completion dates of the subcontract; and
- (4) Geographical area in which the subcontract is to be performed.

f. As used in this notice, and in any contract resulting from this solicitation, the covered area is Hartford County in the state of Connecticut.

F-PROVISION F-101: Pre-Construction Meeting (March 2006)

The Postal Service may require the successful offeror to attend a pre-construction meeting. If required, it will be held prior to the start of any contract performance.

F-PROVISION F-102: Applicability of Provisions (March 2006)

All provisions contained in Section A: Instructions to Offerors and Solicitation will become an integral part of any contract resulting from this solicitation.

F-PROVISION F-103: Direct Vendor/Pre-selected Sources (March 2006)



- a. This solicitation identifies supplies or services for which a qualified or direct vendor requirement applies. With respect to those supplies or services, the contracting officer will consider only the proposals of offeror's who appear, or whose products appear, on the approved products list, qualified manufacturers list, or qualified offeror's list developed for this solicitation.
- b. Unless determined by the contracting officer to be in the Postal Service's best interests, this procurement will not be delayed in order to provide an offeror the opportunity to meet standards specified for qualification.
- c. The Postal Service reserves the right to reject any offer that does not comply with these requirements.

PREPARATION, SUBMISSION, MODIFICATION AND WITHDRAWAL OF PROPOSALS

PROVISION 2-7: Brand Name or Equal (March 2006)

- a. One or more items called for by this solicitation have been identified in the Schedule by a brand-name-or-equal product description. Proposals offering equal products will be considered for award if these products are clearly identified and are determined by the Postal Service to contain all of the essential characteristics of the brand-name products referenced in the solicitation.
- b. Unless the offeror clearly indicates in the proposal that the proposal is for an equal product, the proposal will be considered as offering a brand-name product referenced in the solicitation.
- c. If the offeror proposes to furnish an equal product, the brand name and model or catalog number, if any, of the product to be furnished must be inserted in the space provided in the solicitation. The evaluation of proposals and the determination as to equality of the product offered will be based on information furnished by the offeror or identified in the proposal, as well as other information reasonably available to the purchasing activity. The purchasing activity is not responsible for locating or obtaining any information not identified in the proposal and reasonably available to the purchasing activity. Accordingly, to ensure that sufficient information is available, the offeror must furnish as a part of the proposal:
 - 1. All descriptive material (such as cuts, illustrations, drawings, or other information) necessary for the purchasing activity to establish exactly what the offeror proposes to furnish and to determine whether the product offered meets the requirements of the solicitation; or
 - 2. Specific references to information previously furnished or to information otherwise available to the purchasing activity to permit a determination as to equality of the product offered.
- d. If the offeror proposes to modify a product so as to make it conform to the requirements of the solicitation, the offeror must:
 - 1. Include in the proposal a clear description of the proposed modifications; and
 - 2. Clearly mark any descriptive material to show the proposed modifications.

PROVISION 3-1: Notice of Small-, Minority-, and Woman-owned Business Subcontracting Requirements (February 2018)

When the contract value is estimated at \$1 million or more, all offerors, except small businesses, must submit with their proposals the contract-specific subcontracting plan required by Clause 3-1: Small-, Minority-, and Woman-Owned Business Subcontracting Requirements. Generally, this plan must be agreed to by both the supplier and the Postal Service before award of the contract. Lack of submittal of a contract-specific subcontracting plan may make the offeror's proposal unacceptable for award.

All offerors must be capable of reporting as required by Clause 3-2: Participation of Small-, Minority-, and Woman-Owned Businesses. Reporting is required when the contract value is estimated at \$500,000 or more.

PROVISION 4-9: Preparation of Proposals (Construction) (March 2006)

- a. Offerors are expected to examine the drawings, specifications, and all provisions and instructions. Failure to do so will be at the offeror's risk.
- b. Each offeror must furnish the information required by the solicitation. The offeror must sign the proposal and print or type its name on the proposal and each continuation sheet on which it makes an entry. Erasures or other changes must be initialed by the person signing the proposal.
- c. Time, if stated as a number of days, will include Saturdays, Sundays, and federal holidays.

PROVISION A-1: Restriction on Disclosure and Use of Data (March 2006)



Offerors that include in their proposals data they do not want used or disclosed by the Postal Service for any purpose other than proposal evaluation may take the following steps:

- a. Include on the title page or in the introductory material of their proposal the following: "This proposal includes data that may not be duplicated, used, or disclosed outside the Postal Service – in whole or in part – for any purpose other than to evaluate this proposal. If, however, a contract is awarded to this offeror as a result of – or in connection with – the submission of such data, the Postal Service will have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Postal Service's right to use information contained in the data if it is obtained from another source without restriction. The data subject to this restriction are contained in sheets (Offeror insert numbers or other identification of sheets)."
- b. Mark each sheet of data they wish to restrict with the following legend: "Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal."

F-PROVISION F-201: Prequalified/Non-Prequalified Contractors (March 2006)

- a. Prequalified or non-prequalified contractors must submit a Prequalification Package, Management or Technical Plan, or other documents requested by the Contracting Officer under this solicitation.
- b. Prequalified Contractors: If entities or contractors have already been prequalified, the Postal Service will consider *only* proposals from those entities or contractors currently on the prequalified list as of the date of this solicitation.

F-PROVISION F-202: Key Personnel (March 2006)

- a. The contractor must assign to this contract the personnel named in the offeror's proposal for the following key positions:

	NAME	Title/Position	Phone #
1			
2			
3			
4			
5			
6			

F-PROVISION F-203: Submission of Financial Statements (March 2006)

If not already prequalified, or if prequalified, then at the request of the Contracting Officer, the offeror must submit the required financial statements with its Technical or Technical and Management Proposal. For the purposes of this provision, the term "required financial statement" is defined as the data which includes both the audited Balance Sheet and audited Income Statement covering each of the offeror's immediate past two fiscal years together with an interim report to as near the submission date as possible. These guidelines are to be observed:

- a. Statements shall be prepared in accordance with "Generally Accepted Accounting Principles."
- b. Statement shall include all required Notes to the Financial Statements.
- c. Fiscal Year statements must be certified by an opinion statement on the fairness of the presentation after a review by independent auditors.
- d. The most recent financial statement, if not a Fiscal Year statement, must be certified by either a company officer as to accuracy and veracity, or by an opinion statement on the fairness of the presentation after review by independent auditors.
- e. The Income Statements must incorporate or have attached "Schedule of Cost of Goods Sold." This schedule must reflect Direct Materials, Direct Labor, and Overhead used to compute the amount of cost of goods sold.

It may become necessary for the offeror to submit additional financial information prior to award.

Financial information received will be treated as confidential and will not be used for purposes other than evaluation of financial responsibility.

F-PROVISION F-204: Construction Cost Breakdown (March 2006)

When required by the Contracting Officer, the offeror must submit with its proposal a construction cost breakdown using the sample forms provided in Section B-1500 - Attachments.



EVALUATION AND AWARD

PROVISION 4-2: Evaluation (October 2019)

a. General. The Postal Service will award a contract resulting from this solicitation to the offeror whose offer conforming to the solicitation is deemed to offer the Postal Service the best value, price and other factors, as specified, considered. The following evaluation factors will be used in the evaluation of offers:

(Contracting officer insert the proposal-specific and supplier-specific evaluation factors and indicate their relative importance. In addition, state, in accordance with the Postal Service Supplying Principles and Practices section 2-26, Develop Proposal Evaluation Strategy, the relative importance of the evaluation factors as compared to price.)

b. Options. The Postal Service will ___ will not ___ evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirement. The Postal Service may determine that an offer is unacceptable if the option prices are significantly unbalanced. Evaluation of options will not obligate the Postal Service to exercise the option(s).

c. Notice of Award. The Postal Service may accept an offer (or part of an offer), whether or not there are discussions after its receipt, before an offer's specified expiration time, unless a written notice of withdrawal is received before award. A written notice of award or acceptance of an offer, mailed or otherwise furnished to the successful offeror within the time for acceptance specified in the offer, will result in a binding contract without further action by either party.

F-PROVISION F-301: Contract Award and Proposal Evaluation (March 2006)

a. Evaluation

1. If required by the Contracting Officer all Technical, Management Plans and/or Qualification Statement Packages (QSP) will be evaluated by the Contracting Officer or his/her designated representative(s). The Technical, Management Plans and/or QSPs will be evaluated to ensure that the services and personnel to be provided by the offeror are adequate to ensure the proper execution of this contract.
1. Proposals will be evaluated using proposal-specific technical factors price proposals. The prices will be evaluated to determine that they are fair and reasonable. If it is determined that any technical or price component requires clarification, discussions may be held with any offeror to obtain such clarifications. If and when discussions are conducted with an offeror(s) they will be provided a reasonable time to revise their proposal, if applicable. Offeror(s) whose Technical, Management Plan, QSP and/or price proposal are determined to be unacceptable (incomplete, unreasonable costs, high or low, and with no opportunity to receive contract award) may be eliminated from further consideration. Oral presentations may be required. If required, those offeror's will be notified.

b. Award

1. Award will be made to the responsible offeror whose proposal contains the combination of technical and price offering the best value to the Postal Service. An award will not necessarily be made to the lowest price offered if the associated technical merits of that proposal are considered acceptable.
2. If this solicitation results in a contract for more than \$1 million, the Contracting Officer must approve the offeror's sub-contracting plan prior to award. No sub-contracting plan is required with the initial proposal submittal. The contracting officer will request a sub-contracting plan in the "Intent to Award" letter to the otherwise successful offeror(s).

REPRESENTATIONS AND CERTIFICATIONS

PROVISION 1-3: Domestic Source Certificate - Construction Materials (October 2019)

By checking this box ☐, the offeror certifies that only domestic construction materials (as defined in the Clause 1-10: Preference for Domestic Construction Materials), will be used in the performance of this contract, except for foreign construction materials listed below:

Material	Quality	Estimated Cost
_____	_____	_____
_____	_____	_____
_____	_____	_____



PROVISION 4-3: Representations and Certifications (October 2019)

a Type of Business Organization. The offeror, by checking the applicable blocks, represents that it:

(1) Operates as:

☐ a corporation incorporated under the laws of the state of _____; or country of _____ if incorporated in a country other than the United States of America.

☐ an individual;

☐ a partnership;

☐ a joint venture;

☐ a limited liability company;

☐ a nonprofit organization; or

☐ an educational institution; and

(2) Is (check all that apply)

☐ a small business concern;

☐ a minority business (indicate minority below):

☐ Black American

☐ Hispanic American

☐ Native American

☐ Asian American:

☐ a woman-owned business; or

☐ none of the above entities.

(a) A small business concern for the purposes of Postal Service purchasing means a business, including an affiliate, that is independently owned and operated, is not dominant in producing or performing the supplies or services being purchased, and has no more than 500 employees, unless a different size standard has been established by the Small Business Administration (see 13 CFR 121, particularly for different size standards for airline, railroad, and construction companies). For subcontracts of \$50,000 or less, a subcontractor having no more than 500 employees qualifies as a small business without regard to other factors.

(b) Minority Business. A minority business is a concern that is at least 51 percent owned by, and whose management and daily business operations are controlled by, one or more members of a socially and economically disadvantaged minority group, namely U.S. citizens who are Black Americans, Hispanic Americans, Native Americans, or Asian Americans. (Native Americans are American Indians, Eskimos, Aleuts, and Native Hawaiians. Asian Americans are U.S. citizens whose origins are Japanese, Chinese, Filipino, Vietnamese, Korean, Samoan, Laotian, Kampuchean (Cambodian), Taiwanese, in the U.S. Trust Territories of the Pacific Islands or in the Indian subcontinent.)

(c) Woman-owned Business. A woman-owned business is a concern at least 51 percent of which is owned by a woman (or women) who is a U.S. citizen, controls the firm by exercising the power to make policy decisions, and operates the business by being actively involved in day-to-day management.

(d) Educational or Other Nonprofit Organization. Any corporation, foundation, trust, or other institution operated for scientific or educational purposes, not organized for profit, no part of the net earnings of which inures to the profits of any private shareholder or individual.

(3) Is (check all that apply)

☐ a Postal Service employee or a business organization substantially owned or controlled by such an individual.

☐ a spouse of a Postal Service employee or a business organization substantially owned or controlled by such an individual.

☐ another family member of a Postal Service employee or a business organization substantially owned or controlled by such an individual.

☐ an individual residing in the same household as a Postal Service employee or a business organization substantially owned or controlled by such an individual.

(Note: Offers from any of the sources listed in subparagraph a.3, may not be considered for an award pending review and recommendation by the Postal Service Ethics Office.

b. Parent Company and Taxpayer Identification Number



(1) A parent company is one that owns or controls the basic business policies of an offeror. To own means to own more than 50 percent of the voting rights in the offeror. To control means to be able to formulate, determine, or veto basic business policy decisions of the offeror. A parent company need not own the offeror to control it; it may exercise control through the use of dominant minority voting rights, proxy voting, contractual arrangements, or otherwise.

(2) Enter the offeror's U.S. Taxpayer Identification Number (TIN) in the space provided. The TIN is the offeror's Social Security number or other Employee Identification Number (EIN) used on the offeror's Quarterly Federal Tax Return, U.S. Treasury Form 941, or as required by Internal Revenue Service (IRS) regulations. Offeror's TIN: _____

(3) IRS Form W-9, Request for Taxpayer Identification Number and Certification. You must complete a copy of IRS Form W-9 and attach it to this certification.

(4) Check this block if the offeror is owned or controlled by a parent company:

(5) If the block above is checked, provide the following information about the parent company:

Parent Company's Name: _____

Parent Company's Main Office: _____
Address: _____
No. and Street: _____
City: _____ State: _____ ZIP Code: _____

Parent Company's TIN:----- _____

(6) If the offeror is a member of an affiliated group that files its federal income tax return on a consolidated basis (whether or not the offeror is owned or controlled by a parent company, as provided above) provide the name and TIN of the common parent of the affiliated group:

Name of Common Parent: _____
Common Parent's TIN: _____

c. Certificate of Independent Price Determination

(1) By submitting this proposal, the offeror certifies, and in the case of a joint proposal each party to it certifies as to its own organization, that in connection with this solicitation:

(a) The prices proposed have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to the prices with any other offeror or with any competitor;

(b) Unless otherwise required by law, the prices proposed have not been and will not be knowingly disclosed by the offeror before award of a contract, directly or indirectly to any other offeror or to any competitor; and

(c) No attempt has been made or will be made by the offeror to induce any other person or firm to submit or not submit a proposal for the purpose of restricting competition.

(2) Each person signing this proposal certifies that:

(a) He or she is the person in the offeror's organization responsible for the decision as to the prices being offered herein and that he or she has not participated, and will not participate, in any action contrary to paragraph a above; or

(b) He or she is not the person in the offeror's organization responsible for the decision as to the prices being offered but that he or she has been authorized in writing to act as agent for the persons responsible in certifying that they have not participated, and will not participate, in any action contrary to paragraph a above, and as their agent does hereby so certify; and he or she has not participated, and will not participate, in any action contrary to paragraph a above.

(3) Modification or deletion of any provision in this certificate may result in the disregarding of the proposal as unacceptable. Any modification or deletion should be accompanied by a signed statement explaining the reasons and describing in detail any disclosure or communication.

d. Certification of Nonsegregated Facilities

(1) By submitting this proposal, the offeror certifies that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform services at any location under its control where segregated facilities are maintained. The offeror agrees that a breach of this certification is a violation of Clause 9-7: Equal Opportunity in this contract.

(2) As used in this certification, segregated facilities means any waiting rooms, work areas, rest rooms or wash rooms, restaurants or other eating areas, time clocks, locker rooms or other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment area, transportation, or housing facilities provided for employees that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin, because of habit, local custom, or otherwise.

(3) The offeror further agrees that (unless it has obtained identical certifications from proposed subcontractors for specific time periods) it will obtain identical certifications from proposed subcontractors before awarding subcontracts exceeding \$10,000 that are not exempt from the provisions of Clause 9-7: Equal Opportunity; that it will retain these certifications in its files; and that it will forward the following notice to these proposed subcontractors (except when they have submitted identical certifications for specific time periods):

Notice: A certification of nonsegregated facilities must be submitted before the award of a subcontract exceeding \$10,000 that is not exempt from Clause 9-7: Equal Opportunity. The certification may be submitted either for each subcontract or for all subcontracts during a period (quarterly, semiannually, or annually).

e. Certification Regarding Debarment, Proposed Debarment, and Other Matters



(This certification must be completed with respect to any offer with a value of \$100,000 or more.)

(1) The offeror certifies, to the best of its knowledge and belief, that it or any of its principals:

(a) Are ___ are not ___ presently debarred or proposed for debarment, or declared ineligible for the award of contracts by any Federal, state, or local agency;

(b) Have ___ have not ___, within the 3-year period preceding this offer, been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and

(c) Are ___ are not ___ presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in subparagraph (b) above.

(2) The offeror has ___ has not ___, within a 3-year period preceding this offer, had one or more contracts terminated for default by any Federal, state, or local agency.

(3) "Principals," for the purposes of this certification, means officers, directors, owners, partners, and other persons having primary management or supervisory responsibilities within a business entity (e.g., general manager, plant manager, head of a subsidiary, division, or business segment, and similar positions).

(4) The offeror must provide immediate written notice to the contracting officer if, at any time prior to contract award, the offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(5) A certification that any of the items in e.1 and e.2 of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered as part of the evaluation of the offeror's capability (see section 2-26.4.2, Supplier Capability the Postal Service's Supplying Principles and Practices). The offeror's failure to furnish a certification or provide additional information requested by the contracting officer will affect the capability evaluation.

(6) Nothing contained in the foregoing may be construed to require establishment of a system of records in order to render, in good faith, the certification required by e.1 and e.2 of this provision. The knowledge and information of an offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(7) This certification concerns a matter within the jurisdiction of an agency of the United States and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Section 1001, Title 18 U.S.C.

(8) The certification in e.1 and e.2 of this provision is a material representation of fact upon which reliance was placed when making the award. If it is later determined that the offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Postal Service, the contracting officer may terminate the contract resulting from this solicitation for default.

f. Incorporation by Reference. Wherever in this solicitation or contract a standard provision or clause is incorporated by reference, the incorporated term is identified by its title, its provision or clause number assigned to it, and its date. The text of incorporated terms may be found at <http://about.usps.com/manuals/pm/welcome.htm>. If checked, the following provision(s) is incorporated in this solicitation by reference (Contracting officer will check as appropriate):

☐ Provision 9-1: Equal Opportunity Affirmative Action Program.

☐ Provision 9-2: Preaward Equal Opportunity Compliance Review.

☐ Provision 9-3: Notice of Requirements for Equal Opportunity Affirmative Action

PROVISION 8-2: Representation of Rights in Data (March 2006)

a. By completion of the representation below, the offeror must identify in its proposal the data (including subcontractor-furnished data) it intends to identify as "limited rights data" or "restricted computer software," or that it does not intend to provide as required. Any identification of limited rights data or restricted rights computer software is not determinative of the status of such data, should a contract be awarded to the offeror.

Representation Concerning Data Rights

Offeror has reviewed the requirements for the delivery of technical data or computer software and states (offeror check appropriate block):

_____ None of the data proposed for fulfilling the requirements qualifies as limited rights data or restricted computer software.

_____ Data proposed for fulfilling the requirements qualify as limited rights data or restricted computer software and are identified as follows:



b. "Limited rights data" and "restricted computer software" are defined in the contract clauses entitled Clause 8-6: Rights in Technical Data and Clause 8-9: Rights in Computer Software.

PROVISION 9-1: Equal Opportunity Affirmative Action Program (March 2006)

The offeror, by checking the applicable block or blocks, represents that it

1. ___ has developed and has on file, ___ has not developed and does not have on file, at each establishment, affirmative action programs as required by the rules and regulations of the Secretary of Labor (41 CFR 60-1 and 60-2) and ___ has, ___ has not filed the required reports with the Joint Reporting Committee, or
2. ___ has not previously had contracts subject to the written affirmative action program requirement of the rules and regulations of the Secretary of Labor.

F-PROVISION F-401: Authorized Negotiators (March 2006)

The Offeror represents that the following persons are authorized to negotiate on its behalf with the Postal Service in connection with this solicitation/purchase of professional services (*offeror list names, titles, and telephone numbers of the authorized negotiators*).

	Name	Title/Position	Telephone #
1			
2			
3			
4			
5			
6			

SECTION B: THE CONTRACT

THE WORK

CLAUSE 5-4: Certification of Cost or Pricing Data (July 2014)

a. The supplier must submit a Certificate of Current Cost or Pricing Data, as contained in section 2-34.15 of the USPS Supplying Principles and Practices, when the contract action (including modifications) is valued at \$1 million or more and is made noncompetitively; when the goods and services are not commercially-available; and when fair and reasonable pricing cannot be determined by other means, such as price analysis. The certificate must be submitted as of the date of agreement on price or, if applicable, an earlier date agreed upon between the parties that is as close as practicable to the date of agreement on price.

b. Before awarding any subcontract or pricing any subcontract modification, the supplier must require the subcontractor to submit cost or pricing data that is certified whenever cost or pricing data is required to be certified by the supplier under the circumstances described under paragraph a. above. The supplier will be responsible for requiring the subcontractor to submit cost or pricing data and ensuring it is certified. The supplier must retain the certificate it obtains from the subcontractor until three years after final payment under this contract or any longer period required by statute or other clauses in this contract.

B-CLAUSE B-41: Conditions Affecting the Work (March 2006)

The supplier is responsible for having taken steps reasonably necessary to ascertain the nature and location of the work, and the general and local conditions that can affect the work or its costs. Any failure by the supplier to have done so does not relieve the supplier from responsibility for successfully performing the work without additional expense to the Postal Service. The Postal Service assumes no responsibility for any understanding or representations concerning conditions made by any of its officers or agents before execution of this contract, unless such understanding or representations by the Postal Service are expressly stated in the contract.

B-CLAUSE B-56: Shop Drawings, Coordination Drawings, and Schedules (March 2006) Modified

a. The supplier will submit shop drawings, coordination drawings, and schedules for approval as required by the specifications or requested by the contracting officer, as follows:



(1) Shop drawings will include fabrication, erection, and setting drawings, schedule drawings, manufacturer's scale drawings, wiring and control diagrams, cuts or entire catalogs, pamphlets, descriptive literature, and performance and test data.

(2) Drawings and schedules, other than catalogs, pamphlets, and similar printed material, must be submitted in reproducible form with two prints made by a process approved by the contracting officer. Upon approval, the reproducible form will be returned to the supplier which must furnish the number of additional prints, not to exceed ten required by the Special Conditions of the specifications. The supplier must submit shop drawings in catalog, pamphlet, and similar printed form in a minimum of four copies plus as many additional copies as the supplier may desire or need or for use by subcontractors.

b. Before submitting shop drawings on the mechanical and electrical work, the supplier must obtain the contracting officer's approval of lists of mechanical and electrical equipment and materials as required by the specifications.

c. The supplier will check the drawings and schedules and coordinate them (by means of coordination drawings whenever required) with the work of all trades involved before submission, indicating approval on them. Drawings and schedules submitted without evidence of the supplier's approval may be returned for resubmission. No extension of time in the schedule will be approved for resubmission of returned drawings.

d. Each shop drawing or coordination drawing must have a blank area of 5 by 5 inches, located adjacent to the title block. The title block must display:

(1) Number and title of drawing;

(2) Date of drawing or revision;

(3) Name of project building or facility;

(4) Name of supplier and (if appropriate) of subcontractor submitting drawing;

(5) Clear identity of contents and location on the work; and

(6) Project title and contract number.

e. Unless otherwise provided in this contract, or otherwise directed by the contracting officer, shop drawings, coordination drawings, and schedules must be submitted to the contracting officer, with a letter in triplicate, sufficiently in advance of construction requirements to permit at least 10 working days for checking and appropriate action.

f. Except as otherwise provided in paragraph g below, approval of drawings and schedules will be general and may not be construed as:

(1) Permitting any departure from the contract requirements;

(2) Relieving the supplier of responsibility for any errors, including details, dimensions, and materials; or

(3) Approving departures from full-size details furnished by the contracting officer.

g. If drawings or schedules show variations from the contract requirements because of standard shop practice or for other reasons, the supplier must describe the variations in the letter of transmittal. If acceptable, the contracting officer may approve any or all variations and issue an appropriate change order. If the supplier fails to describe these variations, it will not be relieved of the responsibility for executing the work in accordance with the contract, even though the drawings or schedules have been approved.

h. In addition to reproducible submissions, the contractor should submit a CADD system electronic file for all shop drawings, coordination drawings and schedules prepared with a CADD system compatible with the Postal Service CADD system identified by the contracting officer.

B-CLAUSE B-57: "As Built" Drawings (March 2006) Modified

a. The supplier must, during the progress of the work, keep a master set of prints on the job site, on which is kept a careful and neat record of all deviations from the contract drawings prepared by the architect-engineer made during the course of the work.

b. Upon completion of the project, these "as built" prints must be certified as to their correctness by the signature of the supplier and turned over to the architect-engineer for use in preparing a permanent set of "as built" drawings within thirty (30) calendar days after completion of construction.

c. In addition to reproducible submissions, the supplier should submit a CADD system electronic file for these "as built" documents prepared with a CADD system compatible with the Postal Service CADD system identified by the contracting officer.

d. The supplier shall review the "As-Built" progress with the COR prior to agreement/approval of the monthly pay request. The Postal Service reserves the right to review "as built" documents at any time during the contract period.

e. Costs associated with the preparation and completion of the "as built" drawings shall be part of the contractor's proposal.

B-CLAUSE B-58: Spare-Parts Data (March 2006)

a. The supplier must furnish spare-parts data for each different item of equipment furnished. The data must include a complete list of parts and supplies, with current unit prices and sources of supply; a list of parts and supplies that are either normally furnished at no extra cost with the purchase of the equipment, or specified to be furnished as part of the contract; and a list of additional items recommended by the manufacturer to ensure efficient operation for a period of 180 days at the particular installation.



b. The foregoing does not relieve the supplier of any responsibilities under the guarantees specified.

B-CLAUSE B-61: Warranty (Construction) (March 2006)

a. Unless otherwise provided in the specifications, the supplier warrants that all work is in accordance with contract requirements and free from defective or inferior materials, equipment, and workmanship for one year after the date of final acceptance under this contract.

b. If, within the warranty period, the contracting officer finds that warranted work needs to be repaired or changed because the materials, equipment, or workmanship were inferior, defective, or not in accordance with the contract terms, the supplier must promptly and without additional expense to the Postal Service:

1. Place in a satisfactory condition all of the warranted work;
2. Satisfactorily correct all damage to equipment, the site, the building, or its contents that is the result of such unsatisfactory work; and
3. Satisfactorily correct any work, materials, or equipment disturbed in fulfilling the warranty.

c. Should the supplier fail to proceed promptly in accordance with the warranty, the Postal Service may have the work performed at the supplier's expense.

d. The supplier must obtain each transferable guarantee or warranty of equipment, materials, or installation furnished by any manufacturer, supplier, or installer in the ordinary course of the business or trade. The supplier must obtain and furnish to the Postal Service all information required to make any such guarantee or warranty legally binding and effective, and must submit both the information and the guarantee or warranty to the Postal Service in sufficient time to permit the Postal Service to meet any time limit requirements specified in the guarantee or warranty or, if no time limit is specified, before completion and acceptance of all work under this contract.

B-CLAUSE B-62: Samples (March 2006)

a. After contract award, the supplier must furnish samples required by the specifications or by the contracting officer, for the contracting officer's approval. They must be delivered to the contracting officer or to the architect as specified or as directed. The supplier must prepay all shipping charges on samples. Materials or equipment for which samples are required may not be used in the work until the contracting officer approves in writing.

b. Each sample must be labeled to show:

1. Name of project building or facility, project title, and contract number;
2. Name of supplier and (if appropriate) subcontractor;
3. Identification of material or equipment, with specification requirement;
4. Place of origin; and
5. Name of producer and brand (if any).

c. Samples of finish materials must have additional markings that will identify them under the finish schedules.

d. The supplier must mail under separate cover a letter, in triplicate, submitting each shipment of samples and containing the information required in paragraphs b and c above. The supplier must also enclose a copy of that letter with the shipment and send a copy to the Postal Service representative on the project. Approval of a sample is only for the characteristics or use named in the approval and may not be construed to change or modify any contract requirement. Substitutions are not permitted unless approved in writing by the contracting officer.

e. Approved samples not destroyed in testing will be sent to the Postal Service representative at the project. Approved samples of hardware in good condition will be marked for identification and may be used in the work. Materials and equipment incorporated in the work must match the approved samples. Samples not destroyed in testing and not approved will be returned at the supplier's expense if the supplier so requests at the time of submission.

f. Failure of any material to pass the specified tests will be sufficient cause for refusal to consider, under this contract, any further samples of the same brand or make of that material. The Postal Service reserves the right to disapprove any material or equipment that has previously proved unsatisfactory in service.

g. Samples of materials or equipment delivered on the site or in place may be taken by the Postal Service representative for testing. Failure of a sample to meet contract requirements will automatically void previous approvals of the item tested. The supplier must replace materials or equipment found not to have met contract requirements, or there will be a proper adjustment of the contract price as determined by the contracting officer.

h. Except as otherwise specified, if tests are called for in the specifications, the supplier must pay all costs of these tests. When tests are not specifically called for in the specifications but are required by the Postal Service, the Postal Service will pay all costs of the tests and related engineering services unless the tests indicate that the workmanship or materials used by the supplier are not in conformance with drawings, specifications, approved shop drawings, or the approved materials. In this event, the supplier must pay for the tests, remove all work and material failing to conform, and replace with work and materials in full conformity. All tests pertaining to physical or chemical properties of materials must be made in a laboratory approved by the contracting officer.

F-CLAUSE F-101: Statement of Work/Specifications (March 2006)



a. The supplier must furnish the necessary personnel, material, equipment, services, and facilities (except as otherwise specified) to perform the statement of work/specifications incorporated by reference in Section B.1500.

b. The attachments to the statement of work/specifications listed in Section B.1500 are hereby made a part of this contract.

F-CLAUSE F-102: Supplier Screening Requirements (February 2020)

a. All individuals working on behalf of the Contracted Supplier, either directly employed by the contracted supplier or working as an employee of a subcontractor, material supplier, consultant, etc. (hereinafter referred to collectively as Supplier Personnel), that will physically access an occupied Postal Service facility for more than two (2) consecutive work-weeks during the performance of the contract are subject to the requirement outlined herein;

b. When applicable as outlined in F-102.a, and for each individual defined as Supplier Personnel, a Basic Security Clearance requires the Contracted Supplier to certify that the individual:

1. Has passed a screening test for cocaine, marijuana, amphetamine/methamphetamine, opiates, and phencyclidine (PCP), which the Substance Abuse and Mental Health Services Administration (SAMHSA) has identified as the five most abused substances. The screening test must be performed by a SAMHSA-approved, certified laboratory and must meet the cut-off levels established by SAMHSA. The certification must include the name of the employee, the name of the institution that performed the test, the name of the agency that certified the laboratory, the date of the test (within 90 days of the submission of the results), and the negative results of the test.
2. Is not on parole, probation, or under suspended sentence for commission of a felony.
3. Has not been convicted of a criminal violation during the past 5 years for offenses that involved dishonesty, moral turpitude, financial gain, or assault.
4. Has not engaged in the illegal use, possession, sale, or transfer of narcotics or other illicit drugs during the past 5 years.
5. Does not have pending serious criminal charges such as murder, rape, robbery, burglary, physical assault, sale and distribution of drugs, or weapons violations. If criminal charges are pending, the Basic background investigation is not to be authorized by the Contracting Officer, the Contracting Officer's Representative (COR), or designee until the charges have been resolved.

c. For Supplier Personnel that, as part of the performance of the contract requirements and as determined by the Contracting Officer, will have access to postal information that, if compromised, would have an adverse impact on the mission of the Postal Service, or who have restricted access to postal facilities, shall undergo a Sensitive Background Investigation.

This requirement applies to Supplier Personnel, including supplier subcontractor personnel, requiring access to Postal Service computer networks for such purposes as installing, implementing and/or programming security-related systems, components and/or applications.

A Sensitive Background Investigation requires the Contracted Supplier to provide to the Contracting Officer or designee the following:

1. PS Form 2025, Contract Personnel Questionnaire
2. PS Form 2181-C, Authorization and Release — Background Investigations (USPS Contractors and Employees of Contractors).
3. PS Form 2181-D, Disclosure and Release for Consumer Reports.
4. PS Form 2013, Security Clearance Processing Request.
5. FD 258 Fingerprint Chart — Applicant (two copies).
6. Results from a county criminal history inquiry through local agencies, based on where the individual has resided and has been employed during the past 5 years.
7. Results of a credit bureau inquiry, not older than 60 days.
8. Verification of the individual's employment history for the past 5 years, including a list of reasons for termination or resignation from prior employers.
9. Verification of the individual's citizenship or status through review of birth certificate, naturalization document, passport, or work authorization.
10. Certification that the individual has passed a drug screening test pursuant to procedures for a Basic background investigation.

d. The Contracted Supplier shall maintain supporting documentation for the required drug screening tests, criminal history inquiries and the completed certification forms, and shall make them available at any time for review by the Contracting Officer, but only when requested by the Contracting Officer.

F-CLAUSE F-103: Requirements for Verification of Measurements/On Site Documents (March 2006)

a. The contractor must keep at the site copies of the detailed scope of work and all drawings and specifications related to the contract and must at all times give the Contracting Officer and designated representative access to them.

b. When the word "similar" appears on the drawings or the detailed scope of work, it has a general meaning and must not be interpreted as meaning identical, and all details must be worked out in relation to their location and connection with other parts of the work.

c. In case of discrepancy either in figures, detailed scope of work, drawings, or specifications, the matter must be promptly submitted to the Contracting Officer, who will promptly make determination in writing. Any adjustment by the contractor without such a determination will be at the contractor's own risk and expense. The Contracting Officer must furnish from time to time such detailed drawings and other information as may be necessary.

d. The contractor must verify all dimensions shown of existing work, and all dimensions required for work that is to connect with work now in place, by actual measurement of the existing work. Any discrepancies between the detailed scope of work or the contract requirements and the existing conditions must be referred to the Contracting Officer before the Price Proposal Package is submitted by the contractor.

F-CLAUSE F-104: Method (March 2006)



a. Existing work shall be cut, drilled, altered, removed, or temporarily removed and replaced, as necessary for the performance of the contract work. Work that is replaced shall match similar existing work. Work remaining in place which is damaged or defaced by reason of work done under this contract shall be restored equal to the condition it was in at the time the Contractor commenced performance of work under the work order..

b. The use of impact tools for cutting concrete or for installation of inserts and the use of power-activated tools will not be permitted in occupied buildings. Impact tools and power-activated tools may be used during non-working hours with written permission of the Contracting Officer's representative on each work order.

c. Any items which are to be removed and not to be reused in this contract shall be removed from the project, and shall become the property of the Contractor, unless so noted to remain the property of the Postal Service, elsewhere in this contract.

INSURANCE, BONDS AND RISK

CLAUSE 7-2: Additional Bond Security (March 2006)

If any surety furnishing a bond in connection with this contract becomes unacceptable to the Postal Service or fails to furnish reports on its financial condition as requested by the contracting officer, or if the contract price increases to the point where the security furnished becomes inadequate in the contracting officer's opinion, the supplier must promptly furnish additional security as required to protect the interests of the Postal Service and of persons supplying labor or materials in performance of this contract.

CLAUSE 7-3: Deposit of Assets Instead of Surety Bonds (March 2006)

a. If the supplier has deposited assets instead of furnishing sureties for any bond required under this contract and the assets are in the form of checks, currency, or drafts, the contracting officer will hold the assets in an account for the supplier's benefit.

b. Upon contract completion, the supplier's funds will be returned as soon as possible, unless the contracting officer determines that part or all of the account is required to compensate the Postal Service for costs it incurs as a result of the supplier's delay, default, or failure to perform. In such a case, the entire account will be available to compensate the Postal Service.

CLAUSE 7-4: Insurance (March 2006) Modified

a. During the term of this contract and any extension, the supplier must maintain at its own expense the insurance required by this clause. Insurance companies must be acceptable to the Postal Service. Policies must include all terms and provisions required by the Postal Service.

b. The supplier must maintain and furnish evidence of workers' compensation, employers' liability insurance, and the following general public liability and automobile liability insurance:

GENERAL LIABILITY:

Bodily Injury		Property Damage	
1000000	Per person	500000	Per occurrence
2000000	Per accident	1000000	aggregate

AUTOMOBILE LIABILITY:

Bodily Injury		Property Damage	
1000000	Per person	500000	Per occurrence
2000000	Per accident	1000000	aggregate

c. Each policy must include substantially the following provision: "It is a condition of this policy that the company furnish written notice to the U.S. Postal Service 30 days in advance of the effective date of any reduction in or cancellation of this policy."

d. The supplier must furnish a certificate of insurance or, if required by the contracting officer, true copies of liability policies and manually countersigned endorsements of any changes. Insurance must be effective, and evidence of acceptable insurance furnished, before beginning performance under this contract. Evidence of renewal must be furnished not later than 5 days before a policy expires.

e. The maintenance of insurance coverage as required by this clause is a continuing obligation, and the lapse or termination of insurance coverage without replacement coverage being obtained will be ground for termination for default.



f. For construction contracts: The Postal Service does not carry Builder's Risk insurance coverage. A construction supplier, at its own option and expense, may elect to provide this insurance for its work under this contract (Also See Clause F-107).

B-CLAUSE B-39: Indemnification (March 2006)

The supplier must save harmless and indemnify the Postal Service and its officers, agents, representatives, and employees from all claims, losses, damage, actions, causes of action, expenses, and/or liability resulting from, brought for, or on account of any personal injury or property damage received or sustained by any person, persons or property growing out of, occurring, or attributable to any work performed under or related to this contract, resulting in whole or in part from negligent acts or omissions of the supplier, any subcontractor, or any employee, agent, or representative of the supplier or any subcontractor.

COMMENCEMENT AND COMPLETION

CLAUSE 2-10: Liquidated Damages (March 2006) Modified

a. If the supplier fails to complete the work, deliver the supplies, or perform the services within the time specified in this contract, or any extension, the supplier must, in place of actual damages, pay to the Postal Service \$0 for liquidated damages as agreed for each calendar day of delay. Liquidated damages are not a reimbursable construction cost under cost reimbursable contracts with a guaranteed maximum price, and will be deducted from any fixed fees retained or due, or shared savings due the supplier.

b. Alternatively, if completion, delivery, or performance is delayed beyond the contract dates, the Postal Service may terminate this contract in whole or in part under the *Termination for Default* clause, and the supplier will be liable for the agreed liquidated damages accruing until the time the Postal Service may reasonably obtain delivery or performance of similar facilities, supplies, or services. The liquidated damages will be in addition to excess costs of procurement.

c. The supplier will not be charged with liquidated damages when the delay in completion, delivery, or performance arises out of causes beyond the control and without the fault or negligence of the supplier.

B-CLAUSE B-15: Notice of Delay (March 2006)

Immediately upon becoming aware of any difficulties that might delay deliveries under this contract, the supplier will notify the contracting officer in writing of them. The notification must identify the difficulties, the reasons for them, and the estimated period of delay anticipated. Failure to give notice may preclude later consideration of any request for an extension of contract time.

B-CLAUSE B-16: Suspensions and Delays (March 2006)

a. If the performance of all or any part of the work of this contract is suspended, delayed, or interrupted by:

1. An order or act of the contracting officer in administering this contract; or

2. By a failure of the contracting officer to act within the time specified in this contract - or within a reasonable time if not specified - an adjustment will be made for any increase in the cost of performance of this contract caused by the delay or interruption (including the costs incurred during any suspension or interruption). An adjustment will also be made in the delivery or performance dates and any other contractual term or condition affected by the suspension, delay, or interruption. However, no adjustment may be made under this clause for any delay or interruption to the extent that performance would have been delayed or interrupted by any other cause, including the fault or negligence of the supplier, or for which an adjustment is provided or excluded under any other term or condition of this contract.

b. A claim under this clause will not be allowed:

1. For any costs incurred more than 20 days before the supplier has notified the contracting officer in writing of the act or failure to act involved; and

2. Unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of the delay or interruption, but not later than the day of final payment under the contract.

B-CLAUSE B-19: Excusable Delays (March 2006)

a. Except with respect to defaults of subcontractors, the supplier will not be in default by reason of any failure in performing this contract in accordance with its terms (including any failure by the supplier to make progress in the prosecution of the work that endangers performance) if the failure arises out of causes beyond the control and without the fault or negligence of the supplier. Such causes may include, but are not restricted to, acts of God or of the public enemy, acts of the government in its sovereign capacity or of the Postal Service in its contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather, but in every case the failure to perform must be beyond the control and without the fault or negligence of the supplier.



b. If failure to perform is caused by the failure of a subcontractor to perform or make progress and arises out of causes beyond the control of both the supplier and subcontractor, and without the fault or negligence of either of them, the supplier will not be deemed to be in default, unless:

1. The supplies or services to be furnished by the subcontractor are obtainable from other sources;
2. The contracting officer orders the supplier in writing to procure the supplies or services from other sources; and
3. The supplier fails to comply reasonably with the order.

c. Upon request of the supplier, the contracting officer shall ascertain the facts and extent of failure, and if the contracting officer determines that any failure to perform was occasioned by any of the said causes, the delivery schedule shall be revised accordingly, subject to the rights of the Postal Service under any termination clause included in this contract.

d. As used in this clause, the terms "subcontractor" and "subcontractors" mean subcontractor(s) at any tier.

B-CLAUSE B-34: Notice to Proceed and Commencement, Prosecution and Completion of Work (March 2006) Modified

No work will be performed except pursuant to a Notice to Proceed issued by the contracting officer.

The supplier will be required to (a) commence work under this contract within 10 calendar days after the date the supplier receives the Notice to Proceed, (b) prosecute the work diligently, and (c) complete the entire work, ready for use not later than the number of calendar days from the date of receipt of the Notice to Proceed as listed on the Offer and Award page. The time stated for completion includes final cleanup of the premises.

B-CLAUSE B-59: Construction Progress Chart (March 2006)

a. Within days after receiving notice to proceed, the supplier must prepare and submit to the contracting officer for approval six copies of a practical progress chart. The chart must show the principal categories of work, corresponding with those used in the breakdown on which progress payments are based, the order in which the supplier proposes to carry on the work, the date on which it will start each category of work, and the contemplated dates for completion. The chart must be in suitable scale to indicate graphically the total percentage of work scheduled to be in place at any time. At the end of each progress payment period, or at such intervals as directed by the contracting officer, the supplier must:

- (1) Adjust the chart to reflect any changes in the contract work, completion time, or both, as approved by the contracting officer;
- (2) Enter on the chart the total percentage of work actually in place; and
- (3) Submit three copies of the adjusted chart to the contracting officer.

b. If in the opinion of the contracting officer the work actually in place falls behind that scheduled, the supplier must take such action as necessary to improve progress. The contracting officer may require the supplier to submit a revised chart demonstrating its program and proposed plan to make up the lag in scheduled progress and to ensure completion of work within the contract time. If the contracting officer finds the proposed plan unacceptable, the supplier may be required to submit a new plan. If a satisfactory plan is not agreed upon, the contracting officer may require the supplier to increase the work force, the construction plan and equipment, or the number of work shifts, without additional cost to the Postal Service.

c. Failure of the supplier to comply with these requirements will be considered grounds for determination by the contracting officer that the supplier is failing to prosecute the work with such diligence as will ensure its completion within the time specified.

F-CLAUSE F-304: Scheduling and Security Requirements (March 2006)

a. Before any work is started, the contractor must confer with the Contracting Officer's representative or other designated officials and agree on a sequence of procedures; means of access to premises and building; delivery of materials; and use of approaches; use of corridors, stairways, elevators, and similar means of communications; and the location of partitions, eating spaces for contractor's employees, and the like.

b. Contractor's employees or subcontractors must not park vehicles in customer parking areas. Contractor's employees may park vehicles in Postal Service parking areas only if spaces are available and only with prior approval of the Station Manager/Postmaster.

c. The contractor must consult the Contracting Officer or other designated official (usually the building manager) for permission to inspect the site and for the security regulations in effect. The contractor must comply with all Postal Service security regulations in effect at the work site. The contractor's attention is directed to the *Access to Site* and the *Contractor Screening Requirements* clauses found elsewhere in this document, regarding additional contractor responsibilities for physical security.

F-CLAUSE F-305: Exception to Completion, Schedule and Liquidated Damages (March 2006)

In cases where the contracting officer determines that sodding and/or planting and/or specified maintenance thereof is not feasible during the construction period, such work will be exempted from the completion schedule and the Liquidated Damages clause. The work must be accomplished or completed during the first sodding and/or planting period or the specified maintenance period following the original completion date.

CONTRACTOR RESPONSIBILITIES

CLAUSE 1-10: Preference for Domestic Construction Materials (October 2019)

a. Preference will be given to domestic construction materials in accordance with the Postal Service's Supplying Principles and Practices, section 2-36, Evaluate Foreign and Domestic Proposals. These practices are available at, <http://about.usps.com/manuals/spp/spp.pdf>.

b. For the purposes of this clause: Construction Contracts awarded over the following amounts and for the following trade-agreements will be in effect for those articles, materials, and supplies brought to the construction site for incorporation into the building or work:

Trade Agreement	Construction Contract (Equal to or Exceeding)
WTO GPA	\$6,932,000
Australia FTA	\$6,932,000
Bahrain FTA	\$10,441,216
CAFTA-DR FTA (Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, and Nicaragua)	\$6,932,000
Chile FTA	\$6,725,000
Colombia FTA	\$6,932,000
Israeli Trade Act	-
Korea FTA	\$6,932,000
Morocco FTA	\$6,725,000
NAFTA — Canada	\$10,441,216
NAFTA — Mexico	\$10,441,216
Oman FTA	\$10,441,216
Panama FTA	\$6,932,000
Peru FTA	\$6,932,000
Singapore FTA	\$6,932,000

c. Other than those listed in paragraph (b) above, the contractor agrees that only domestic construction material will be used by the contractor, subcontractors, materialmen, and suppliers in the performance of this contract, except for foreign construction materials, if any, listed in this contract.

CLAUSE 1-7: Organizational Conflicts of Interest (March 2006)



a. *Warranty Against Existing Conflicts of Interest.* The supplier warrants and represents that, to the best of its knowledge and belief, it does not presently have organizational conflicts of interest that would diminish its capacity to provide impartial, technically sound, objective research assistance or advice, or would result in a biased work product, or might result in an unfair competitive advantage, except for advantages flowing from the normal benefits of performing this agreement.

b. *Restrictions on Contracting.* The supplier agrees that during the term of this agreement, any extensions thereto, and for a period of 2 years thereafter, neither the supplier nor its affiliates will perform any of the following:

(1) Compete for any Postal Service contract for production of any product for which the supplier prepared any work statement or specifications or conducted any studies or performed any task under this agreement.

(2) Contract (as the provider of a component or the provider of research or consulting services) with any offeror competing for any Postal Service contract for production of any product for which the supplier prepared any work statement or specifications or conducted any studies or performed any task under this agreement.

(3) Contract (as the provider of a component or the provider of research or consulting services) with the offeror which wins award of a Postal Service contract for production of any product for which the supplier prepared any work statements or specifications or conducted any studies or performed any task under this agreement.

c. *Possible Future Conflicts of Interest.* The supplier agrees that, if after award of this agreement, it discovers any organizational conflict of interest that would diminish its capacity to provide impartial, technically sound, objective research assistance or advice, or would result in a biased work product, or might result in an unfair competitive advantage, except advantages flowing from the normal benefits of performing this agreement, the supplier will make an immediate and full disclosure in writing to the contracting officer, including a description of the action the supplier has taken or proposes to take to avoid, eliminate, or neutralize this conflict of interest.

d. *Nondisclosure of Confidential Material*

(1) The supplier recognizes that, in performing this agreement, it may receive confidential information. To the extent that and for as long as the information is confidential, the supplier agrees to take the steps necessary to prevent its disclosure to any third party without the prior written consent of the contracting officer.

(2) The supplier agrees to indoctrinate its personnel who will have access to confidential information as to the confidential nature of the information, and the relationship under which the supplier has possession of this information.

(3) The supplier agrees to limit access to the confidential information obtained, generated, or derived, and to limit participation in the performance of orders under this agreement to those employees whose services are necessary for performing them.

e. *Postal Service Remedy.* If the supplier breaches or violates any of the warranties, covenants, restrictions, disclosures or nondisclosures set forth under this clause, the Postal Service may terminate this agreement, in addition to any other remedy it may have for damages or injunctive relief.

CLAUSE 7-10: Sustainability (July 2014)

The Postal Service embraces sustainable practices and environmental responsibility, and encourages suppliers to improve their environmental sustainability practices in the performance of this contract. As appropriate, the Postal Service will collaborate with the supplier to identify opportunities that may improve the environmental and sustainability performance of the goods and services being provided by the supplier. The Postal Service encourages the supplier to develop and propose innovative sustainability business practices and offer goods and services that help the Postal Service operate in a more environmentally sustainable manner. Innovative sustainability business practices can take the form of improved and more sustainable business processes, replacement of materials used in performance with more sustainable materials, combination of sustainable materials with other materials that lead to reductions in the total cost of ownership, or by some other means. If the proposed innovation results in enhanced sustainability or otherwise furthers the Postal Service's goals, then the Postal Service may (1) share any savings resulting from the innovation with the supplier; or (2) increase the quantities called for; (3) or extend the term (including options) of this contract. Additional quantities may not exceed 100% of the amount required by this contract, and term extensions may not exceed two years, including options.

Note: Contracting officers should also see Clause 2-22, Value Engineering, as an example of a cost-sharing approach that may be used as a starting point for encouraging innovation. for an example of incentivizing suppliers. Clause 2-22 may be modified as appropriate to meet the goals of the particular purchase, or contracting officers may draft contract-specific clauses for use. In either case, the contracting officer must consult assigned counsel in this effort. See 5-9.6, Value Engineering, for general guidance on that subject.

CLAUSE 7-11: Recycled Content Products (July 2014)

For the purposes of Postal Service contracting, 'Recycled Content Product' means a product that contains any percentage of post-consumer or pre-consumer recycled content materials.

(a) In the performance of this contract, the supplier and its subcontractors must prioritize the use of Recycled Content Products when such products are commercially available at a cost-competitive price and make every effort to ensure that Recycled Content Products are used at the time of the contract award for products that are –

1. Delivered or acquired by the supplier and/or subcontractors for Postal Service use or for performing services at a Postal Service facility; or
2. Specified in the design of a building or work, or incorporated during construction, renovation, or maintenance at a Postal Service facility.

(b) The requirements of paragraph (a) apply to the supplier and its subcontractors unless the product cannot be acquired –

1. Competitively within a timeframe providing for compliance with the contract performance schedule;
2. Meeting other contract performance requirements; or
3. At a reasonable price for the intended business purpose.

(c) Information about recycled content products is available at EPA Comprehensive Procurement Guidelines <http://www.epa.gov/epawaste/conserve/tools/cpg/index.htm>.

CLAUSE 7-12: Bio-Based Content Products (July 2014)

For the purposes of Postal Service contracting, "Bio-Based Content Product" means a product that contains bio-based content sufficient to earn at least one of the following:

1. U.S. Department of Agriculture (USDA) BioPreferred Federal Procurement Preference (FPP Designation); and/or
2. U.S. Department of Agriculture (USDA) Biobased Product Certification/Labeling.

(a) In the performance of this contract, the supplier and its subcontractors must prioritize the use of Bio-Based Content Products when such products are commercially available at a cost-competitive price, and make every effort to ensure that Bio-Based Content Products are used at the time of the contract award for products that are -

1. Delivered; or acquired by the supplier and/or subcontractors for Postal Service use or for performing services at a Postal Service facility; or
2. Specified in the design of a building or work, or incorporated during construction, renovation, or maintenance at a Postal Service facility.

(b) The requirements of paragraph (a) apply to the supplier and its subcontractors unless the product cannot be acquired -

1. Competitively within a timeframe providing for compliance with the contract performance schedule;
2. Meeting other contract performance requirements; or
3. At a reasonable price for the intended business purpose.

CLAUSE 7-13: Energy Efficiency in Energy Consuming Products (July 2014)

For the purposes of Postal Service contracting, "Energy-Efficient Product" means a product that contains energy-efficient attributes and has earned one or more of the following:

1. U.S. Environmental Protection Agency (EPA) Energy Star Certification;
2. U.S. Department of Energy Federal Energy Management Program designation (FEMP Designation) for being in the upper 25 percent of their class in energy efficiency; and/or
3. National Electric Manufacturers Association (NEMA) Premium program certification.

(a) In the performance of contracts containing energy consuming products, the supplier and its subcontractors must prioritize the use of Energy-Efficient Products when such products are commercially available at a cost-competitive price, and make every effort to ensure that Energy-Efficient Products are used at the time of the contract award for products that are -

1. Delivered; or acquired by the supplier and/or subcontractors for Postal Service use or for performing services at a Postal Service facility; or
2. Specified in the design of a building or work, or incorporated during construction, renovation, or maintenance at a Postal Service facility.

(b) The requirements of paragraph (a) apply to the supplier and its subcontractors unless the product cannot be acquired -

1. Competitively within a timeframe providing for compliance with the contract performance schedule;
2. Meeting other contract performance requirements; or
3. At a reasonable price for the intended business purpose.

(c) Information about Energy-Efficient Products is available at -

1. Energy Star: http://www.energystar.gov/index.cfm?c=products.pr_find_es_products;
2. FEMP: http://www1.eere.energy.gov/femp/procurement/eed_requirements.html; and
3. NEMA: http://www.nxtbook.com/ygsreprints/NEMA/espg_nxtbook/.

CLAUSE 7-14: Water Efficiency in Water Consuming Products (July 2014)

For the purposes of Postal Service contracting, "Water-Efficient Product" means a product that contains water-efficient attributes and has earned U.S. Environmental Protection Agency (EPA) WaterSense Certification.

(a) In the performance of contracts containing water consuming products, the supplier and its subcontractors must prioritize the use of Water-Efficient Products when such products are commercially available at a cost-competitive price, and make every effort to ensure that Water-Efficient Products are used at the time of the contract award for products that are -

1. Delivered; or acquired by the supplier and/or subcontractors for Postal Service use or for performing services at a Postal Service facility; or
2. Specified in the design of a building or work, or incorporated during construction, renovation, or maintenance at a Postal Service facility.

(b) The requirements of paragraph (a) apply to the supplier and its subcontractors unless the product cannot be acquired -

1. Competitively within a timeframe providing for compliance with the contract performance schedule;
2. Meeting other contract performance requirements; or
3. At a reasonable price for the intended business purpose.



(c) Information about water-efficient products is available at - WaterSense: http://www.epa.gov/watersense/product_search.html.

CLAUSE 7-15: Supplier Sustainability Data Reporting (July 2014)

This contract requires all suppliers with contracts valued at \$500,000 or more who sell the Postal Service environmentally preferable product (EPP) goods*, to submit calendar-quarter reports containing estimates of the (number), weight (in pounds), and dollars (\$) associated with environmentally preferable product (EPP) goods provided or sold to the Postal Service in the performance of this contract. Upon contract award, the supplier will be provided a Sustainability Reporting Worksheet and completed worksheets must be submitted within 30 days of the end of each calendar quarter and cover the following EPP focus categories:

* EPP excludes services.

1. **Recycled Content:** Product (not packaging) contains any percentage of pre-consumer or post-consumer recycled content materials.
2. **Bio-Based Content:** Product (not packaging) contains bio-based content sufficient to earn at least one of the following:
 1. U.S. Department of Agriculture (USDA) BioPreferred Federal Procurement Preference (FPP Designation); and/or
 2. U.S. Department of Agriculture (USDA) Biobased Product Certification/Labeling.
3. **Energy-Efficient:** Product contains energy-efficient attributes and has earned one or more of the following Postal Service accepted certifications/designations:
 1. U.S. Environmental Protection Agency (EPA) Energy Star Certification;
 2. U.S. Department of Energy Federal Energy Management Program designation (FEMP Designation) for being in the upper 25 percent of their class in energy efficiency; and/or
 3. National Electric Manufacturers Association (NEMA) Premium program certification.
4. **Water-Efficient:** Product contains water-efficient attributes and has earned U.S. Environmental Protection Agency (EPA) WaterSense Certification.
5. **Certified to a Postal Service accepted product sustainability/eco-label standard:** Product is certified to one or more of the Postal Service accepted product sustainability/eco-label standards listed at http://blue.usps.gov/sustainability/green_purchasing.htm.^{*} This list contains sustainability/eco-label standards that are internationally recognized, credible, and relevant to Postal Service purchases. The Postal Service does not rank or provide preference to competing sustainability/eco-label standards.

* Note: The Postal Service Office of Sustainability maintains this list.

CLAUSE 7-6: Federal, State, and Local Taxes (March 2006)

Description

a. Definitions.

1. **Contract Date.** The effective date of this contract or modification.
 2. **All Applicable Federal, State, and Local Taxes and Duties.** All taxes and duties, in effect on the contract date, that the taxing authority is imposing and collecting on the transactions or property covered by this contract.
 3. **After-imposed Federal Tax.** Any new or increased federal excise tax or duty, or tax that was executed or excluded on the contract date but whose exemption is revoked or reduced during the contract period, on the transactions or property covered by this contract that the supplier is required to pay or bear as the result of legislative, judicial, or administrative action taking effect after the contract date. It does not include social security tax or other employment taxes.
 4. **After-relieved Federal Tax.** Any amount of federal excise tax or duty, except social security or other employment taxes, that would otherwise have been payable on the transactions or property covered by this contract, but which the supplier is not required to pay or bear, or for which the supplier obtains a refund or drawback, as the result of legislative, judicial, or administrative action taking effect after the contract date.
 5. **Local taxes.** Includes taxes imposed by a possession of the United States or by Puerto Rico.
- b. The contract price includes all applicable federal, state, and local taxes and duties.
- c. The contract price will be increased by the amount of any after-imposed federal tax, provided the supplier warrants in writing that no amount for a newly imposed federal excise tax or duty or rate increase was included in the contract price as contingency reserve or otherwise.
- d. The contract price will be decreased by the amount of any after-relieved federal tax.
- e. The contract price will be decreased by the amount of any federal excise tax or duty, except social security or other employment taxes, that the supplier is required to pay or bear, or does not obtain a refund of, through the supplier's fault, negligence, or failure to follow instructions of the contracting officer.
- f. No adjustment will be made in the contract price under this clause unless the amount of the adjustment exceeds \$100.
- g. The supplier must promptly notify the contracting officer of all matters relating to any federal excise tax or duty that reasonably may be expected to result in either an increase or decrease in the contract price and must take appropriate action as the contracting officer directs.
- h. The Postal Service will, without liability, furnish evidence appropriate to establish exemption from any federal, state, or local tax when the supplier requests such evidence and a reasonable basis exists to sustain the exemption.

CLAUSE 8-2: Authorization and Consent (March 2006)



a. *Research and Development Work.* The Postal Service authorizes and consents to all use and manufacture of any invention covered by a U.S. patent in the performance of research, development, or experimental work called for, or performed as a necessary activity, in the performance of this contract or any subcontract, at any tier.

b. *Supplies and Construction.* The Postal Service authorizes and consents to all use and manufacture of any invention covered by a U.S. patent in performing this contract or subcontract, at any tier, that is:

- (1) Embodied in the structure or composition of any article, the delivery of which is accepted by the Postal Service under this contract; or
- (2) Used in machinery, tools, or methods whose use necessarily results from compliance by the supplier or subcontractor with (a) specifications or written provisions forming a part of this contract or specific written instructions given by the contracting officer directing the manner of performance.

c. *Determination of Liability.* The liability of the Postal Service for patent infringement or for the unauthorized use of any patent will be determined by the provisions of any patent indemnity clause included in this contract or in any subcontract under this contract (at any tier) and by any indemnification or warranty (express or implied) otherwise provided by the supplier or subcontractor for similar products or services when supplied to commercial buyers.

d. *Flowdown.* The supplier must include, and require inclusion of, this clause, suitably modified to identify the parties, in all subcontracts under this contract at any tier that are expected to exceed \$50,000.

CLAUSE 8-3: Notice and Assistance Regarding Patent and Copyright Infringement (March 2006)

a. The supplier must report to the contracting officer, in writing, promptly and in reasonable detail, any notice, claim, or suit regarding patent or copyright infringement (or unauthorized use of a patent or copyright) based on performance of this contract.

b. At the contracting officer's request, the supplier must furnish all evidence and information in its possession pertaining to the suit or claim. The evidence and information will be furnished at the expense of the Postal Service except when the supplier has agreed to indemnify the Postal Service.

c. This clause must be included in all subcontracts under this contract, at any tier, over \$50,000.

CLAUSE 8-4: Patent Indemnity (March 2006)

a. Except as provided in paragraph d below, the supplier indemnifies the Postal Service, its employees, and its agents against liability, including costs and fees, for patent infringement (or unauthorized use) arising from the manufacture, use, or delivery of supplies, the performance of service, the construction or alteration of real property, or the disposal of property by or for the Postal Service, if the supplies, service, or property (with or without relatively minor modifications) have been or are being offered for sale or use in the commercial marketplace by the supplier.

b. The Postal Service must promptly notify the supplier of any claim or suit subject to the indemnity of paragraph a above alleging patent infringement or unauthorized use of a patent.

c. To the extent allowed by law, the supplier may participate in the defense of any suit to which this clause applies.

d. This indemnification does not apply to:

(1) Infringements for the unauthorized use of a private patent covered by this indemnity resulting from the contracting officer's specific written direction, compliance with which requires an infringement; or

(2) Infringement or unauthorized use claims that are unreasonably settled without the supplier's consent before litigation.

e. This clause must be included in all subcontracts under this contract, at any tier, over \$50,000.

B-CLAUSE B-25: Advertising of Contract Awards (February 2013)

Except with the contracting officer's prior approval, the supplier agrees not to refer in its public statements or commercial advertising to the fact that it was awarded a Postal Service contract or to imply in any manner that the Postal Service endorses its products.

B-CLAUSE B-42: Performance of Work by Supplier (March 2006) Modified

a. The supplier must perform on the site, with its own organization, work equivalent to at least 10 percent of the total amount of work to be performed under this contract. The percentage of work required to be performed by the supplier may be reduced with written approval of the contracting officer.

b. The supplier must give personal superintendence to the work either in person or by having a foreman or superintendent on the supplier's payroll, approved by the contracting officer, with authority to act on behalf of the supplier, on the site at all times work is in progress.

1. If more than 50% but less than 70% of the value of the contract work is subcontracted, a minimum of one supplier's superintendent (on the supplier's payroll) must be provided on site to be responsible for coordinating, directing, inspecting, and expediting the subcontract work. The contracting officer may modify this requirement depending on the size and scope of the work.



2. If 70% or more of the value of the work is subcontracted, a minimum of two supplier's superintendents (on the supplier's payroll) must be provided on site to be responsible for coordinating, directing, inspecting, and expediting the subcontract work. The contracting officer may modify this requirement depending on the size and scope of the work.

3. It is contemplated that all work will be performed during normal working hours, usually 7:00 a.m. until 3:30 p.m., local time, unless otherwise specified in this contract. Work performed by the supplier at its own volition outside such normal working hours must be at no additional expense to the Postal Service.

c. The supplier must refer requests received from occupants of buildings included in the supplier's work area to change the hours of work, including anticipated cost and schedule impact to the contracting officer for resolution.

d. The supplier is required to submit a daily construction report by 10:00 a.m. of the following working day on a form provided by the contracting officer or at the contracting officers' option, the supplier shall use the USPS designated Project Management Reporting System. If the USPS Project Management Reporting System is specified (See Division 1) the supplier shall include in their proposal all costs associated with using the system, such as; labor, equipment, training, etc. Reports must indicate the number of men by trade or craft, and the type and location of work. It will include subcontractors, minority participation, safety and quality violations observed, corrective measures taken to correct the violations and other information requested by the contracting officer. The contracting officer may modify the requirements of this report as the project progresses.

B-CLAUSE B-43: Superintendence by Supplier (March 2006) Modified

The supplier must give personal superintendence to the work or have a competent foreman or superintendent, satisfactory to the contracting officer, on the work at all times during progress, with authority to act for the supplier.

The supplier's on-site superintendent must be able to speak, read, and write American English to the extent necessary to permit reasonable communication with Postal Service personnel.

B-CLAUSE B-44: Use of Premises (March 2006) Modified

a. If the premises are occupied, the supplier, any subcontractors, and their employees, must comply with the regulations governing access to, operation of, and conduct while on the premises and must perform the work required under this contract so as not to unreasonably interfere with the conduct of Postal Service business or use and occupancy by Postal Service tenants.

b. Any requests received by the supplier from occupants to change the sequence of work must be referred to the contracting officer for determination.

c. The supplier, any subcontractors, and their employees will not have access to any building outside the scope of this contract without permission of the contracting officer.

d. As permitted by the site conditions, the supplier must separate his personnel and subcontractors personnel from postal employees, customers, mail, and postal property not involved in the project. The supplier must cordon off the area using barricades or other means to achieve this separation.

e. Where available, utility services of the building will be used if the contracting officer/installation head determines sufficient capacity is available to support the work. Supplier or subcontractor employees, without approval of the contracting officer, may not use the toilet facilities unless such approval is contained in this contract. No cleaning of tools, including painting equipment/brushes, is permitted in the toilet or janitorial facilities.

f. Any use of an existing elevator must be by prior arrangement with the building manager of the building and subject to the building manager's control. The supplier must provide and maintain suitable and adequate protective coverings for the elevator machinery, the hatchway entrances, and the interior of the elevator during the period of use. Loads in excess of the rated capacity of the elevator are not permitted. The Postal Service will bear the cost of the electric current for the operation of the elevator. On completion of the work, the supplier must remove the protective coverings together with any resultant dirt and debris, and leave the equipment in a condition equal to the condition it was in at the time the supplier commenced using the elevator unless specified otherwise in this contract.

B-CLAUSE B-47: Permits and Responsibilities (Construction) (March 2006) Modified

a. The supplier is responsible, without additional expense to the Postal Service, for obtaining any necessary licenses and permits, and for complying with any applicable federal, state, and municipal laws, codes, and regulations in connection with the prosecution of the work. The supplier is responsible for all damage to persons or property that occurs as a result of its negligence. The supplier must take proper safety and health precautions to protect the work, the workers, the public, and the property of others. The supplier is responsible also for all materials delivered and work performed until completion and acceptance of the entire construction work, except for any completed unit of construction that may have been accepted.

b. The supplier must demonstrate compliance with all environmental permits, assessment, or impact statement requirements and regulations identified in the contract specifications, documents or drawings prior to, and during construction.

B-CLAUSE B-49: Building Codes, Fees, and Charges (March 2006)

a. State and local building codes and regulations do not apply as a matter of law to work inside the property lines of Postal Service-owned properties but generally do apply to Postal Service-leased properties. In compliance with Postal Service policy, the supplier must comply with all state and local building code requirements unless otherwise specifically provided.

- b. The supplier must pay all fees and charges for connections to outside services and for use of property outside the site.

B-CLAUSE B-51: Heat (March 2006)

Unless otherwise specified, or unless directed otherwise by the contracting officer, the supplier must:

- a. Provide heat as necessary to protect all work materials and equipment against injury from dampness and cold;
- b. Protect, cover, and/or heat, as may be necessary, to produce and maintain a temperature of not less than 50 degrees Fahrenheit in the concrete during the placing, setting, and curing of concrete, and in the plaster during the application, setting, and curing of plaster; and
- c. Provide heat as necessary to produce in the area where the work is to be done a temperature of not less than 70 degrees Fahrenheit for the period beginning 10 days before the placing of interior finishes and finish materials and continuing until completion of beneficial occupancy of the area.

B-CLAUSE B-52: Debris and Cleanup (March 2006)

- a. The supplier must, during the progress of the work, remove and dispose of the resultant dirt and debris and keep the premises clean.
- b. The supplier will, upon completion of the work, remove all construction equipment and surplus materials (except materials or equipment that are to remain Postal Service property as provided by this contract), and leave the premises in a clean, neat, and orderly condition satisfactory to the contracting officer.

B-CLAUSE B-63: Materials and Workmanship (March 2006)

- a. Unless otherwise specifically provided, all equipment and materials incorporated in the work must be new and of the most suitable grade for the purpose intended. Unless otherwise specifically provided, reference to any equipment, material, or patented process by brand name, make, or catalog number establishes a standard of quality only. The supplier may substitute any equipment, material, or process that the contracting officer finds to be equal to that named. To obtain approval to use a different equipment, material, or process, the supplier must furnish the contracting officer the manufacturer's name, the model number, and other identifying data and information regarding the nature and performance of the proposed substitute. If requested by the contracting officer, samples must be submitted for approval at the supplier's expense, shipping charges prepaid. Materials or processes substituted without approval may be rejected.
- b. In the event of substitution in accordance with paragraph a above, the supplier must furnish to the contracting officer for approval the manufacturer's name, the model number, and any other relevant information on the performance, capacity, nature, and rating of equipment or materials proposed for substitution.
- c. The supplier must obtain the contracting officer's approval of the machinery and mechanical equipment incorporated into the work. The supplier must submit samples of all materials and equipment as directed by the contracting officer or as required by the specifications.
- d. All work must be performed in a skillful and workmanlike manner. The contracting officer may, in writing, require the supplier to remove from the work any employee the contracting officer deems incompetent, careless, or otherwise objectionable.

F-CLAUSE F-401: Optional Materials or Methods (March 2006)

Where the technical provisions permit the Contractor to select optional materials, items, systems, or equipment, the selection of such options is subject to the following conditions:

- a. The selection must be made prior to the issuance of the contract and must be included in the detailed scope of work and the price proposal.
- b. Once an option has been selected and approved, it must be used for the entire Contract.
- c. The Contractor must coordinate its selection with the drawings and specifications and make all necessary adjustments without additional cost to the Postal Service.

F-CLAUSE F-402: Identification of Contract Deliverables (March 2006)

Unless otherwise specified, the cover page of each document prepared and submitted by the contractor to the Postal Service under this contract must include the following information:

- a. Name and business address of the contractor.
- b. Contract number.
- c. Name, position, and office location of the Postal Service's Contracting Officer's representative.
- d. Date of report.

F-CLAUSE F-403: Protection and Damage (March 2006)

- a. Provide all labor, materials, and equipment necessary for protection of personnel, furnishings, equipment, or building structure from damage. Remove and replace movable items, if necessary. Replace or repair any items damaged, due to work performed under this contract equal to their original construction and finish.
- b. Use rubber-tired vehicles that use non-volatile fuels for conveying materials inside building and provide temporary covering, as necessary, to protect floors.
- c. No materials shall be thrown from windows or doors of buildings. Building waste system shall not be used to remove refuse, emptying paint cans, and the like.
- d. Debris shall be removed from the site daily. Premises shall be left neat and clean after each work shift, so that business may proceed the next regular workday without interruption.
- e. Dust-proof enclosures or partitions for protection wherever dusty or dirty work is performed and dampening of debris to avoid dusting when removed shall be negotiated into Work Order as required.
- f. Whenever flammable solvents or adhesives (do not use unless nonflammable items are not suitable for the condition) are used, provide adequate ventilation and fire protection measures. Do not use flammable solvents or adhesives in any case when flame-or-spark-producing operations are being performed in the area.

F-CLAUSE F-406: Operation and Maintenance Manuals - Instruction and Training (March 2006)

The contractor must provide training in accordance with *Division 1-General Requirements*. Scheduling of the training will be subject to mutual agreement between the contractor and the Postal Service. All instructors must be experienced, and the training will be aimed at the technician level. The contractor must specify, in each training course outline, the skills and competencies required as a prerequisite for each course of instruction. The contractor will provide each attendee with all the manuals, text material, and course outlines necessary for the specified training. Training materials shall be submitted to the Postal Service for review and approval at least thirty (30) calendar days after approval of shop drawings. The training course curriculum will be subject to review and approval by the Postal Service prior to the first presentation. The number of personnel to be trained may be revised by the Postal Service, provided the Postal Service notifies the contractor, in writing, of the changes at least 15 calendar days before the commencement of the specific training, and provided that the total number of people trained does not exceed ten (10).

Detailed requirements for training activities are incorporated in Division 1 – General Requirements and must be included in all applicable subcontracts. The contractor is not required to provide training for irradiation equipment, but will provide training for all other contractor install systems, including HVAC controls, cameras, etc.

POSTAL SERVICE RIGHTS AND RESPONSIBILITIES**CLAUSE 2-11: Postal Service Property - Fixed Price (March 2006)****a. Postal Service-Furnished Property**

1. The Postal Service will deliver to the supplier, for use in connection with and under the terms of this contract, the property described as Postal Service-furnished property in the Schedule or specifications, together with any related information the supplier may request that may reasonably be required for the intended use of the property (hereinafter referred to as "Postal Service-furnished property").
2. The contractor delivery or performance dates are based on the expectation that Postal Service-furnished property suitable for use (except for property furnished "as is") will be delivered at the times stated in the Schedule or, if not so stated, in sufficient time to enable the supplier to meet these delivery or performance dates. If Postal Service-furnished property is not delivered by these times, the contracting officer will, upon timely written request from the supplier, make a determination of any delay occasioned the supplier and will equitably adjust the delivery or performance dates or the contract price, or both, and any other contractual provisions affected by the delay, in accordance with the *Changes* clause.
3. Except for Postal Service-furnished property furnished "as is," if the Postal Service-furnished property is received in a condition not suitable for its intended use, the supplier must notify the contracting officer and (as directed by the contracting officer) either (a) return it at the expense of the Postal Service or otherwise dispose of it, or (b) effect repairs or modifications. Upon the completion of (a) or (b), the contracting officer (upon written request from the supplier) will equitably adjust the delivery or performance dates or the contract price, or both, and any other affected contractual provision, in accordance with the *Changes* clause.
4. The provisions for adjustment in this paragraph a are exclusive, and the Postal Service is not liable to suit for breach of contract by reason of any delay in delivery of Postal Service-furnished property or its delivery in a condition not suitable for its intended use.

b. Changes in Postal Service-Furnished Property

1. By written notice, the contracting officer may (a) decrease the property provided or to be provided by the Postal Service under this contract, or (b) substitute other Postal Service-owned property for the property to be provided by the Postal Service, or to be acquired by the supplier for the Postal Service under this contract. The supplier must promptly take any action the contracting officer may direct regarding the removal and shipping or the property covered by this notice.
2. In the event of any decrease in or substitution of property pursuant to subparagraph b.1 above, or any withdrawal of authority to use property provided under any other contract or lease, which property the Postal Service had agreed in the Schedule to make available for the performance of this contract, the contracting



officer, upon the supplier's written request (or - if substitution causes a decrease in the cost of performance - on the contracting officer's own initiative), will equitably adjust any contractual provisions affected by the decrease, substitution, or withdrawal, in accordance with the *Changes* clause.

c. Title. Title to all Postal Service-furnished property remains in the Postal Service. To define the obligations of the parties under this clause, title to each item of facilities, special test equipment, or special tooling (other than that subject to a special-tooling clause) acquired by the supplier for the Postal Service under this contract will pass to and vest in the Postal Service when its use in the performance of this contract begins, or upon payment for it by the Postal Service, whichever is earlier, whether or not title was previously vested. All Postal Service-furnished property together with all property acquired by the supplier, title to which vests in the Postal Service under this paragraph c, is subject to the provisions of this clause and is hereinafter collectively referred to as "Postal Service property." Title to Postal Service property is not affected by its incorporation into or attachment to any property not owned by the Postal Service, nor does Postal Service property become a fixture or lose its identity as personal property by being attached to any real property.

d. Use of Postal Service Property. The Postal Service property, unless otherwise provided in this contract or approved by the contracting officer, must be used only for performing this contract.

e. Utilization, Maintenance, and Repair of Postal Service Property. The supplier must maintain and administer, in accordance with sound industrial practice, a program or system for the utilization, maintenance, repair, protections, and preservation of Postal Service property until it is disposed of in accordance with this clause. If any damage occurs to Postal Service property, the risk of which has been assumed by the Postal Service under this contract, the Postal Service will replace the items or the supplier must make such repairs as the Postal Service directs; provided, however, that if the supplier cannot effect these repairs within the time required, the supplier will dispose of the property in the manner directed by the contracting officer. The contract price includes no compensation to the supplier for performing any repair or replacement for which the Postal Service is responsible, and an equitable adjustment will be made in any contractual provisions affected by such repair or replacement made at the direction of the Postal Service, in accordance with the *Changes* clause. Any repair or replacement for which the supplier is responsible under the provisions of this contract must be accomplished by the supplier at the supplier's own expense.

f. Risk of Loss. *Unless otherwise provided in this contract, the supplier assumes the risk of, and becomes* responsible for, any loss or damage to Postal Service property provided under this contract upon its delivery to the supplier or upon passage of title to the Postal Service as provided in paragraph c above, except for reasonable wear and tear and except to the extent that it is consumed in performing this contract.

g. Access. *The Postal Service, and any persons designated by it, must at reasonable times have access* to premises where any Postal Service property is located, for the purpose of inspecting it.

h. Final Accounting for and Disposition of Postal Service Property. Upon completion, or at such earlier dates as may be fixed by the contracting officer, the supplier must submit, in a form acceptable to the contracting officer inventory schedules covering all items of Postal Service property not consumed in performing this contract (including any resulting scrap) or not previously delivered to the Postal Service, and will prepare for shipment, deliver f.o.b. origin, or dispose of this property, as the contracting officer may direct or authorize. The net proceeds of disposal will be credited to the contract price or will be paid in such other manner as the contracting officer may direct.

i. Restoration of Supplier's Premises and Abandonment. Unless otherwise provided in this contract, the Postal Service:

1. May abandon any Postal Service property in place, whereupon all obligations of the Postal Service regarding it will cease; and
2. Has no obligation with regard to restoration or rehabilitation of the supplier's premises, either in case of abandonment, disposition on completion of need or of the contract, or otherwise, except for restoration or rehabilitation costs properly included in an equitable adjustment under paragraph b or e above.

Alternate Paragraph c (use when contract provides for reimbursement of costs for certain materials)

j. Title

1. Title to all Postal Service-furnished property remains in the Postal Service. To define the obligations of the parties under this clause, title to each item of facilities, special test equipment, or special tooling (other than that subject to a special-tooling clause) acquired by the supplier for the Postal Service under this contract will pass to and vest in the Postal Service when its use in the performance of this contract begins, or upon payment for it by the Postal Service, whichever is earlier, whether or not title was previously vested.

2. Title to all material purchased by the supplier for whose cost the supplier is entitled to be reimbursed as a direct item of cost under this contract will pass to and vest in the Postal Service upon delivery of the material to the supplier by the vendor.

3. Title to other material whose cost is reimbursable to the supplier under this contract will pass to and vest in the Postal Service upon:

- a. Its issuance for use in the performance of this contract; or
- b. Reimbursement of its cost by the Postal Service, whichever occurs first.

4. All Postal Service-furnished property, together with all property acquired by the supplier, title to which vests in the Postal Service under this paragraph c, is subject to the provisions of this clause and is hereinafter collectively referred to as "Postal Service property." Title to Postal Service property is not affected by its incorporation into or attachment to any property not owned by the Postal Service, nor does Postal Service property become a fixture or lose its identity as personal property by being attached to any real property.

CLAUSE 2-14: Postal Service Property Furnished "As Is" (March 2006)

- a. The Postal Service makes no warranty whatsoever with respect to Postal Service property furnished "as is" except that the property is in the same condition when placed at the f.o.b. point specified in the solicitation as when inspected by the supplier pursuant to the solicitation or (if not inspected by the supplier) as when last available for inspection under the solicitation.
- b. The supplier may repair any property made available to the supplier "as is." Repair will be at the supplier's expense except as otherwise provided in this clause. Such property may be modified at the supplier's expense, but only with the written permission of the contracting officer. Any repair or modification of property furnished "as is" does not affect the title of the Postal Service.
- c. If there is any change (between the time inspected or last available for inspection under the solicitation to the time placed on board at the location specified in the solicitation) in the condition of Postal Service property furnished "as is" that will adversely affect the supplier, the supplier must, upon receipt of the property, notify the contracting officer of that fact, and (as directed by the contracting officer) either (1) return the property at the expense of the Postal Service or otherwise dispose of it, or (2) effect repairs to return it to the condition it was in when inspected under the solicitation, or (if not inspected) as it was when last available for inspection under the solicitation. Upon completion of (1) and (2) above, the contracting officer, upon written request from the supplier, will equitably adjust any contractual provisions affected by the return, disposition, or repair, in accordance with the *Changes* clause. The foregoing provisions for adjustment are exclusive, and the Postal Service is not liable for any delivery of Postal Service property furnished "as is" in a condition other than that in which it was originally offered.
- d. Except as otherwise provided in this clause, Postal Service property furnished "as is" is governed by the *Postal Service Property* clause of this contract.

CLAUSE 4-19: Information Security Requirements Resource (February 2013)

The Postal Service is committed to creating and maintaining an environment that protects Postal Service application systems from accidental or intentional unauthorized use, modification, disclosure, or destruction. Handbook AS-805, Information Security, establishes Postal Service information security policies. Handbook AS-805-A, *Information Resource Certification and Accreditation Process*, provides the process for identifying the sensitivity and criticality of the application system, determining information security requirements for protecting the application system, and ensuring appropriate, cost-effective information security controls, mechanisms, and procedures are implemented to protect the application system. If the supplier has not already performed the following, it must, following contract award and before beginning contract performance:

Comply with the policies delineated in Handbook AS-805, Information Security, and processes defined in Handbook AS-805-A, *Information Resource Certification and Accreditation Process*.

Cooperate with the Postal Service in completing the application Business Impact Assessment (BIA) to identify the sensitivity and criticality of the application and to determine the information security requirements.

Include and comply with the information security requirements generated by the BIA and included in the contract or agreement.

Coordinate ISA activities with the Postal Service's Corporate Information Security Office (CISO).

Complete ISA templates and provide applicable documentation and deliverables to the CISO.

Supplier(s) are responsible for mitigating all security vulnerabilities identified from site security reviews conducted by the Postal Service Inspection Service and CISO, or audits conducted by the Office of the Inspector General.

Postal Service data may not be stored outside of postal premises or placed onto laptops or other mobile media without the prior consent of the Contracting Officer. Requests to store Postal Service data on laptops or other mobile media are sent to the Contracting Officer. The Contracting Officer will coordinate such requests with the CISO.

CLAUSE 4-7: Records Ownership (March 2006)

Notwithstanding any state law providing for retention of rights in the records, the supplier agrees that the Postal Service may, at its option, demand and take without additional compensation all records relating to the services provided under this agreement. The supplier must turn over all such records upon request but may retain copies of documents produced by the supplier.

CLAUSE 4-8: Key Personnel (March 2006)

a. To the extent that the statement of work provides for services to be performed by key personnel, those services must be performed by the personnel identified in the supplier's proposal to perform them unless substitutes have been approved in writing by the contracting officer. Use of junior personnel, even under key personnel supervision (for example, associates or student workers), is not authorized unless they are identified in the supplier's proposal by name or position, with a description of their duties.

b. This agreement may be terminated if the key personnel named in the supplier's proposal become unavailable for any reason. If the unavailability of key personnel is not the fault of the supplier, the contracting officer may terminate by giving notice of termination. The supplier will be paid for service performed up to the date of termination. If the contracting officer finds that the supplier is at fault for the unavailability of key personnel, the agreement may be terminated for default.

CLAUSE 8-6: Rights in Technical Data (March 2006)

a. Definitions

(1) *Data*. Recorded information, regardless of the form or the medium on which it may be recorded. The term includes technical data and computer software. The term does not include information incidental to contract administration, such as financial, administrative, cost or pricing, or management information.

(2) *Form, Fit, and Function Data*. Data relating to an item or process that are sufficient to enable physical and functional interchangeability, as well as data identifying source, size, configuration, mating and attachment characteristics, functional characteristics, and performance requirements; except that for computer software, it means data identifying origin, functional characteristics, and performance requirements but specifically excludes the source code, algorithm, process, formulas, and machine-level flow charts of the computer software.

(3) *Limited Rights Data*. Data other than computer software developed at private expense, including minor modifications of these data.

(4) *Technical Data*. Data other than computer software, of a scientific or technical nature.

(5) *Unlimited Rights*. The rights of the Postal Service in technical data and computer software to use, disclose, reproduce, prepare derivative works, distribute copies to the public, and perform and display publicly, in any manner and for any purpose, and to have or permit others to do so.

b. Allocation of Rights

(1) Except as provided in paragraph c below regarding copyright, the Postal Service has unlimited rights in:

(a) Technical data first produced in the performance of this contract (except to the extent that they constitute minor modifications of data that are limited rights data);

(b) Form, fit, and function data delivered under this contract; except that all form, fit, and function data describing limited rights data must be delivered with unlimited rights;

(c) Technical data delivered under this contract that constitute manuals or instructional and training material for installation, operation, or routine maintenance and repair of items, components, or processes delivered or furnished for use under this contract; and

(d) All other technical data delivered under this contract, unless provided otherwise in paragraph g below.

(2) The allocation of rights in any computer programs, data bases, and documentation will be determined by the *Rights in Computer Software* clause, except that limited rights data formatted as computer data bases for delivery to the Postal Service are to be treated as limited rights data under this *Rights in Technical Data* clause.

c. Copyright

(1) Unless provided otherwise in paragraph d below, the supplier may establish, without prior approval of the contracting officer, claim to copyright in scientific and technical articles based on, or containing, technical data first produced in the performance of this contract and published in academic, technical, or professional journals, symposia proceedings, or similar works. The prior, express written permission of the contracting officer is required to establish claim to copyright in all other technical data first produced in the performance of this contract. When making claim to copyright, the supplier must affix the applicable copyright notice of 17 U.S.C. 401 or 402. The supplier grants to the Postal Service and others acting on its behalf a paid-up, nonexclusive, irrevocable worldwide license in such copyright data to reproduce, prepare derivative works, distribute copies to the public, and perform and display the data publicly.

(2) The supplier may not, without prior written permission of the contracting officer, incorporate in technical data delivered under this contract any data not first produced in the performance of this contract containing the copyright notice of 17 U.S.C. 401 or 402, unless the supplier identifies the data and grants to the Postal Service, or acquires on its behalf at no cost to the Postal Service, a license of the same scope as set forth in subparagraph c.1 above.

(3) The Postal Service agrees not to remove any copyright notices placed on data pursuant to this paragraph c, and to include such notices on all reproductions of the data.

d. Release, Publication, and Use of Technical Data

(1) The supplier has the right to use, release to others, reproduce, distribute, or publish any technical data first produced by the supplier in the performance of this contract, except to the extent these data may be subject to the federal export control or national security laws or regulations, or unless otherwise provided below in this paragraph d.2 following or expressly set forth in this contract.

(2) The supplier agrees that if it receives or is given access to data necessary for the performance of this contract that contain restrictive markings, the supplier will treat the data in accordance with the markings unless otherwise specifically authorized in writing by the contracting officer.

e. Unauthorized Marking of Data

(1) If any technical data delivered under this contract are marked with the notice specified in paragraph g below and the use of such a notice is not authorized by this clause, or if the data bear any other unauthorized restrictive markings, the contracting officer may at any time either return the data or cancel the markings. The contracting officer must afford the supplier at least 30 days to provide a written justification to substantiate the propriety of the markings. Failure of the supplier to timely respond, or to provide written justification, may result in the cancellation of the markings. The contracting officer must consider any written justification by the supplier and notify the supplier if the markings are determined to be authorized.

(2) The foregoing procedures may be modified in accordance with Postal Service regulations implementing the Freedom of Information Act (5 U.S.C. 552) if necessary to respond to a request thereunder. In addition, the supplier is not precluded from bringing a claim in connection with any dispute that may arise as the result of a final disposition of the matter by a court of competent jurisdiction.

f. Omitted or Incorrect Markings



(1) Technical data delivered to the Postal Service without limited rights notice authorized by paragraph g below, or the copyright notice required by paragraph c above, will be deemed to have been furnished with unlimited rights, and the Postal Service assumes no liability for the disclosure outside the Postal Service, the supplier may request, within six months (or a longer time approved by the contracting officer) after delivery of the data, permission to have notices placed on qualifying technical data at the supplier's expense, and the contracting officer may agree to do so if the supplier:

- (a) Indemnifies the technical data to which the omitted notice is to be applied;
 - (b) Demonstrates that the omission of the notice was inadvertent;
 - (c) Establishes that the use of the proposed notice is authorized; and
 - (d) Acknowledges that the Postal Service has no liability with respect to the disclosure, use, or reproduction of any such data made before the addition of the notice or resulting from the omission of the notice.
- (2) The contracting officer may also (a) permit correction at the supplier's expense of incorrect notices if the supplier identifies the technical data on which correction of the notice is to be made and demonstrates that the correct notice is authorized, or (b) correct any incorrect notices.

g. *Protection of Limited Rights Data.* When technical data other than data listed in b.1(a), (b), and (c) above are specified to be delivered under this contract and qualify as limited rights data, if the supplier desires to continue protection of such data, the supplier must affix the following "Limited Rights Notice" to the data, and the Postal Service will thereafter treat the data, subject to paragraphs e and f above, in accordance with the Notice:

LIMITED RIGHTS NOTICE

These technical data are submitted with limited rights under Postal Service Contract No. _____ (and subcontract _____, if appropriate). These data may be reproduced and used by the Postal Service with the express limitation that they will not, without written permission of the supplier, be used for purposes of manufacture or disclosed outside the Postal Service; except that the Postal Service may disclose these data outside the Postal Service for the following purposes, provided that the Postal Service makes such disclosure subject to prohibition against further use and disclosure:

- 1. Use (except for manufacture) by support service suppliers.
- 2. Evaluation by Postal Service evaluators.
- 3. Use (except for manufacture) by other suppliers participating in the Postal Service's program of which the specific contract is a part, for information and use in connection with the work performed under each contract.
- 4. Emergency repair or overhaul work.

This Notice must be marked on any reproduction of these data, in whole or in part.

h. *Subcontracting.* The supplier has the responsibility to obtain from its subcontractors all data and rights therein necessary to fulfill the supplier's obligations under the contract. If a subcontractor refuses to accept terms affording the Postal Service such rights, the supplier must promptly bring such refusal to the attention of the contracting officer and may not proceed with subcontract award without further authorization.

i. *Relationship to Patents.* Nothing contained in this clause implies a license to the Postal Service under any patent or may be construed as affecting the scope of any license or other right otherwise granted to the Postal Service.

CLAUSE 8-9: Rights in Computer Software (March 2006)

a. Definitions

- (1) Computer Software: Computer programs, computer data bases, and their documentation.
- (2) Form, Fit, and Function Data: Data identifying origin, functional characteristics, and performance requirements but specifically excludes the source code, algorithm, process, formulas, and machine-level flow charts of the computer software.
- (3) Restricted Computer Software: Computer software developed at private expense that is a trade secret, is commercial or financial and confidential or privileged, or is published copyrighted computer software, including minor modifications of this computer software.
- (4) Restricted Rights: The rights of the Postal Service in restricted computer software, as set forth in a Restricted Rights Notice as provided in paragraph g below, or as otherwise may be provided in a collateral agreement incorporated in and made part of this contract.
- (5) Unlimited Rights: The rights of the Postal Service in computer software to use, disclose, reproduce, prepare derivative works, distribute copies to the public, and perform and display publicly, in any manner and for any purpose, and to have or permit others to do so.

b. Allocation of Rights. Except as provided in paragraph c below regarding copyright, the Postal Service has unlimited rights in:

- (1) Computer software first produced in the performance of this contract (except to the extent that it constitutes minor modifications of computer software that is restricted computer software);
- (2) Form, fit, and function data delivered under this contract; except that all form, fit, and function data describing limited rights data must be delivered with unlimited rights;



(3) All other computer software delivered under this contract, except for restricted computer software provided in accordance with paragraph g below.

c. Copyright

(1)(a) The prior, express written permission of the contracting officer is required to establish claim to copyright in all computer software or other data first produced in the performance of this contract. When making claim to copyright, the supplier must affix the applicable copyright notice of 17 U.S.C. 401. The supplier grants to the Postal Service and others acting on its behalf a paid-up, nonexclusive, irrevocable worldwide license in such copyrighted computer software to reproduce, prepare derivative works, and perform and display the computer software and other data publicly.

(b) If the Postal Service desires to obtain copyright in the computer software first produced in the performance of the contract and permission has not been granted pursuant to c.1(a) above, the contracting officer may direct the supplier to establish, or authorize the establishment of, claim to copyright in the computer software and to assign, or obtain the written assignment of, the copyright to the Postal Service or its designated assignee.

(2) The supplier may not, without prior written permission of the contracting officer, incorporate in computer software delivered under this contract any computer software not first produced in the performance of this contract containing the copyright notice of 17 U.S.C. 401, unless the supplier identifies the computer software and grants to the Postal Service, or acquires on its behalf at no cost to the Postal Service, a license of the same scope as set forth in c.1.(a) above or as otherwise may be provided in a collateral agreement incorporated in and made part of this contract.

(3) The Postal Service agrees not to remove the supplier's copyright notice placed on computer software pursuant to this paragraph c, and to include such notices on all reproduction of the computer software.

d. Release, Publication, and Use of Computer Software

(1) Unless prior written permission is obtained from the contracting officer, or to the extent expressly set forth in this contract, the supplier will not use, release to others, reproduce, distribute, or publish any computer software first produced by the supplier in the performance of the contract.

(2) The supplier agrees that to the extent it receives or is given access to computer software necessary for the performance of this contract that contains restrictive markings, the supplier will treat the computer software in accordance with these markings unless otherwise specifically authorized in writing by the contracting officer.

e. Unauthorized Marking of Computer Software

(1) If any computer software delivered under this contract is marked with the notice specified in paragraph g below and the use of such a notice is not authorized by this clause, or if the computer software bears any other unauthorized restrictive markings, the contracting officer may at any time either return the computer software or cancel the markings. The contracting officer must afford the supplier at least 30 days to provide a written justification to substantiate the propriety of the markings. Failure of the supplier to timely respond, or to provide written justification, may result in the cancellation of the markings. The contracting officer must consider any written justification by the supplier and notify the supplier if the markings are determined to be authorized.

(2) The foregoing procedures may be modified in accordance with Postal Service regulations implementing the Freedom of Information Act (5 U.S.C. 552) if necessary to respond to a request thereunder. In addition, the supplier is not precluded from bringing a claim in connection with any dispute that may arise as the result of the Postal Service's action to remove any markings on computer software, unless this action occurs as a result of a final disposition of the matter by a court of competent jurisdiction.

f. Omitted or Incorrect Markings

(1) Computer software delivered to the Postal Service without the restricted rights notice authorized by paragraph g below, or the copyright notice required by paragraph c above, will be deemed to have been furnished with unlimited rights, and the Postal Service assumes no liability for the disclosure, use or reproduction of such computer software. However, the extent the computer software has not been disclosed outside the Postal Service, the supplier may request, within six months (or a longer time approved by the contracting officer) after delivery of the computer software, permission to have notices placed on qualifying computer software at the supplier's expense, and the contracting officer may agree to do so if the supplier:

(a) Identifies the computer software involved;

(b) Demonstrates that the omission of the notice was inadvertent;

(c) Establishes that the use of the proposed notice is authorized; and

(d) Acknowledges that the Postal Service has no liability with respect to the disclosure, use, or reproduction of any such computer software made before the addition of the notice or relisting from the omission of the notice.

(2) The contracting officer may also (a) permit correction, at the supplier's expense, of incorrect notices if the supplier identifies the computer software on which correction of the notice is to be made and demonstrates that the correct notice is authorized, or (b) correct any incorrect notices.

g. Protection of Restricted Computer Software

(1) When computer software other than that listed in subparagraphs b.1 and b.2 above is specified to be delivered under this contract and qualifies as restricted computer software, if the supplier desires to continue protection of such computer software, the supplier must affix the following "Restricted Rights Notice" to the computer software, subject to paragraphs e and f above, in accordance with the Notice:

"RESTRICTED RIGHTS NOTICE

a. This computer software is submitted with restricted rights under Postal Service Contract No. _____ (and subcontract _____, if appropriate). It may not be used, reproduced, or disclosed by the Postal Service except as provided below or as otherwise stated in the contract.

b. This computer software may be:



1. Used or copied for use in or with the computer or computers for which it was acquired, including use at any Postal Service installation at which the computer or computers may be transferred;
 2. Used or copied for use in a backup computer if any computer for which it was acquired is inoperative;
 3. Reproduced for safekeeping (archives) or backup purposes;
 4. Modified, adapted, or combined with other computer software, provided that the modified, adapted, or combined portions of any derivative software incorporating restricted computer software are made subject to the same restricted rights;
 5. Disclosed to and reproduced for use by support service suppliers in accordance with 1 through 4 above, provided the Postal Service makes such disclosure or reproduction subject to these restricted rights; and
 6. Used or copied for use in or transferred to a replacement computer.
- c. Notwithstanding the foregoing, if this computer software is published copyrighted computer software, it is licensed to the Postal Service, without disclosure prohibitions, with the minimum rights set forth in the preceding paragraph.
- d. Any other rights or limitations regarding the use, duplication, or disclosure of this computer software are to be expressly stated in, or incorporated in, the contract.
- e. This Notice must be marked on any reproduction of this computer software, in whole or in part."

(2) When it is impracticable to include the above Notice on restricted computer software, the following short-form Notice may be used instead, on condition that the Postal Service's rights with respect to such computer software will be as specified in the above Notice unless otherwise expressly stated in the contract.

RESTRICTED RIGHTS NOTICE (SHORT FORM)

Use, reproduction, or disclosure is subject to restrictions set forth in Contract No. _____ (and subcontract _____, if appropriate) with _____ (name of supplier and subcontractor)."

h. Subcontracting. The supplier has the responsibility to obtain from its subcontractors all computer software and rights in it necessary to fulfill the supplier's obligations under this contract. If a subcontractor refuses to accept terms affording the Postal Service such rights, the supplier must promptly bring such refusal to the attention of the contracting officer and may not proceed with subcontract award without further authorization.

i. Standard Commercial License or Lease Agreements. The supplier unconditionally accepts the terms and conditions of this clause unless expressly provided otherwise in this contract or in a collateral agreement incorporated in and made part of this contract. Thus the supplier agrees that, notwithstanding any provisions to the contrary contained in the supplier's standard commercial license or lease agreement pertaining to any restricted computer software delivered under this contract, and irrespective of whether any such agreement has been proposed before or after issuance of this contract of the fact that such agreement may be affixed to or accompany the restricted computer software upon delivery, the Postal Service has the rights set forth in this clause to use, duplicate, or disclose any restricted computer software delivered under this contract.

B-CLAUSE B-17: Disallowance of Costs (March 2006)

- a. The contracting officer may at any time issue the supplier a written notice of intent to disallow specified costs under this contract that have been determined not to be allowable under the contract terms.
- b. The supplier may, after receiving a notice of intent to disallow costs, submit a written response to the contracting officer, with justification for allowance of the costs. If the supplier does respond within 60 days, the contracting officer will, within 60 days of receiving the response, either make a written withdrawal of the notice or issue a written decision.

B-CLAUSE B-36: Postal Service Partial Occupancy (May 2005)

- a. The contracting officer reserves the right of partial occupancy or use of facilities, services, and utilities, before final acceptance, without implying completion or acceptance of any part of the project by the Postal Service. Before such occupancy or use, the contracting officer must furnish the supplier an itemized list of work remaining to be performed or corrected. Failure to list an item will not relieve the supplier of the responsibility for complying with the terms of the contract.
- b. Costs incurred as a result of such partial occupancy or use of facilities, services, and utilities are subject to equitable adjustment under the *Changes* clause.

B-CLAUSE B-45: Other Contracts (March 2006)

The Postal Service may award other contracts for additional work, and the supplier must cooperate fully with the other suppliers and Postal Service employees, and carefully fit in its own work as may be directed by the contracting officer. The supplier must not commit or permit any act that will interfere with the performance of work by any other supplier or by Postal Service employees.

B-CLAUSE B-53: Survey Monuments and Bench Marks (March 2006)



- a. The Postal Service has established, or will establish, such general reference points as will enable the supplier to proceed with the work. The supplier will provide new monuments where shown or specified. If the supplier finds that any previously established reference points have been destroyed or displaced, or that none has been established, the supplier must promptly notify the contracting officer.
- b. The supplier must protect and preserve established bench marks and monuments and make no changes in locations without the written approval of the contracting officer. Established reference points that may be lost, covered, destroyed, or disturbed in the course of performance of the work under this contract, or that require shifting because of necessary changes in grades or locations, must (subject to prior approval of the contracting officer) be replaced and accurately located or relocated (as appropriate) at the supplier's expense, by a licensed engineer or licensed land surveyor.
- c. New monuments will be 6 inches square by 3 feet deep (unless otherwise specified), of concrete or stone, with a 3-inch copper or brass pin, 3/8-inch in diameter, in the center, and must be set flush with the ground or pavement in locations indicated on the site plan.
- d. Monuments will not be required where lines of buildings are coincident with property lines.
- e. The supplier must verify the figures shown on the survey and site plan before undertaking any construction work and will be responsible for the accuracy of the finished work.
- f. After completion of construction and before final payment, the supplier must furnish the Postal Service blueprints (in triplicate) of plans showing the exact location of construction survey monuments with reference to true property lines.

F-CLAUSE F-501: Contracting Officer/Contracting Officer's Representative (COR) (March 2006)

The Contracting Officer may appoint a Contracting Officer's representative (COR), who may be either a Postal Service employee or a contractor. The name, address, telephone number, and specific responsibilities, authority, and limitations of the COR will be provided to the contractor in writing by the contract start date. The COR may be removed or replaced at any time without prior notice to the contractor, but notification of the change, including the name and address of any successor COR, will be provided promptly to the contractor by the Contracting Officer, in writing.

F-CLAUSE F-502: Examination of Subcontractor Records (March 2006)

In addition to Clause 4-2, paragraph b, the supplier agrees to include in all subcontracts under this contract a provision to the effect that the Postal Service and its authorized representatives will, until three years after final payment under the subcontract, or for any shorter specified period for particular records, have access to and the right to examine any directly pertinent books, documents, papers, or other records of the subcontractor involving transactions related to the subcontract. The term subcontract as used in this clause excludes:

1. Purchase orders; and
2. Subcontracts for public utility services at rates established for uniform applicability to the general public. [Also see Clause 4-2, Paragraph b.](#)

F-CLAUSE F-503: Postal Service Directed Staffing Changes (March 2006)

- a. Should the Contracting Officer deem it to be in the best interests of the Postal Service to require the removal of any person working on or under this contract, or any contract, that person must be immediately removed from the work.
- b. "Person," as used in this clause, includes persons, firms, corporations, and the like, employed by the supplier under contract or otherwise, whether a permanent part of its organization or not.

F-CLAUSE F-504: Site Visits (March 2006)

- a. The Postal Service from time to time during construction may desire to conduct groups of guests on visits to the site of the work. These tours will be authorized by the Contracting Officer or his appointed representative. In such event the contractor will cooperate by providing access to and posting signs to give notice of dangerous areas, providing hard hats, and making such other arrangements for the safety and convenience of the guests as may be required. If any such visit or the arrangements therefore cause an increase in the contractor's cost of, or the time required for, the performance of any part of the work under this contract, whether or not changed by any order, an equitable adjustment shall be made and the contract modified in writing. The Contracting Officer shall give the contractor as much advance notice of any such visits as is practicable and to the maximum practicable extent shall schedule any such visits so as not to interfere with the progress of the work.
- b. The contractor's indemnification of the Postal Service contained in the "Indemnification" clause of this contract shall not apply during any such visits to guests of the Postal Service or to Postal Service officers, employees, or agents who are engaged in conducting, guiding, or accompanying any such visits, leaving the Postal Service and the contractor responsible for their own acts and omissions according to applicable law and other clauses of this contract. This special contract clause does not apply to inspections, investigations, or official site visits provided for elsewhere in this contract or conducted for the purpose of aiding in the enforcement of law.

ADMINISTRATIVE ITEMS



CLAUSE 1-6: Contingent Fees (March 2006)

- a. The supplier warrants that no person or selling agency has been employed or retained to solicit or obtain this contract for a commission, percentage, brokerage, or contingent fee, except bona fide employees or bona fide, established commercial or selling agencies employed by the supplier for the purpose of obtaining business.
- b. For breach or violation of this warranty, the Postal Service has the right to annul this contract without liability or to deduct from the contract price or otherwise recover the full amount of the commission, percentage, brokerage fee, or contingent fee.

CLAUSE 4-1: General Terms and Conditions (July 2007)

a. Inspection and Acceptance. The supplier will only tender for acceptance those items that conform to the requirements of this contract. The Postal Service reserves the right to inspect or test supplies or services that have been tendered for acceptance. The Postal Service may require repair or replacement of nonconforming supplies or reperformance of nonconforming services at no increase in contract price. The Postal Service must exercise its post acceptance rights (1) within a reasonable period of time after the defect was discovered or should have been discovered and (2) before any substantial change occurs in the condition of the items, unless the change is due to the defect in the item.

b. Assignment. If this contract provides for payments aggregating \$10,000 or more, claims for monies due or to become due from the Postal Service under it may be assigned to a bank, trust company, or other financing institution, including any federal lending agency, and may thereafter be further assigned and reassigned to any such institution. Any assignment or reassignment must cover all amounts payable and must not be made to more than one party, except that assignment or reassignment may be made to one party as agent or trustee for two or more parties participating in financing this contract. No assignment or reassignment will be recognized as valid and binding upon the Postal Service unless a written notice of the assignment or reassignment, together with a true copy of the instrument of assignment is filed with:

1. The contracting officer;
2. The surety or sureties upon any bond; and
3. The office, if any designated to make payment, and the contracting officer has acknowledged the assignment in writing.
4. Assignment of this contract or any interest in this contract other than in accordance with the provisions of this clause will be grounds for termination of the contract for default at the option of the Postal Service.

c. Changes

1. The contracting officer may, in writing, without notice to any sureties, order changes within the general scope of the contract in the following:
 - a. Drawing, designs, or specifications when supplies to be furnished are to be specially manufactured for the Postal Service in accordance with them;
 - b. Statement of work or description of services;
 - c. Method of shipment or packing;
 - d. Places of delivery of supplies or performances of services;
 - e. Delivery or performance schedule;
 - f. Postal Service furnished property or facilities
2. Any other written or oral order (including direction, instruction, interpretation, or determination) from the contracting officer that causes a change will be treated as a change order under this paragraph, provided that the supplier gives the contracting officer written notice stating (a) the date, circumstances, and source of the order and (b) that the supplier regards the order as a change order.
3. If any change affects the cost of performance or the delivery schedule, the contract will be modified to effect an equitable adjustment.
4. The supplier's claim for equitable adjustment must be asserted within 30 days of receiving a written change order. A later claim may be acted upon - but not after final payment under this contract - if the contracting officer decides that the facts justify such an action.
- d. Reserved
- e. Reserved
- f. Reserved
- g. Invoices
 1. The supplier's invoices must be submitted before payment can be made. The supplier agrees that submission of an invoice to the Postal Service for payment is a certification that:
 - a. Any services billed for have been performed in accordance with the contracts, requirements, and



b. Any supplies for which the Postal Service is being billed have been shipped or delivered in accordance with the instructions issued by the contracting officer and that the supplies are in the quantity and of the quality designated at the contract.

2. To ensure prompt payment, an original invoice (or electronic, if authorized) must be submitted to the address designated in the contract to receive invoices for each destination and shipment. An invoice must contain;

a. The supplier's name, remit to address (including ZIP+4) and phone number;

b. Unique invoice number and invoice date;

c. Any applicable task or delivery order number;

d. A description of the supplies or services and the dates delivered or performed;

e. The point of shipment or delivery;

f. Quantity, unit of measure, unit (price(s) and extension(s) of the items delivered;

g. Shipping and payment terms, including GBL number if applicable; and

h. Any additional information required by the contract.

h. Patent Indemnity. The supplier will indemnify the Postal Service and its officers, employees and agents against liability, including costs for actual or alleged direct or contributory infringement of, or inducement to infringe, any United States or foreign patent, trademark, or copyright, arising out of performance of this contract, provided the supplier is reasonably notified of such claims and proceedings.

i. Payment

1. Payment will be made for items accepted by the Postal Service that have been delivered to the delivery destinations set forth in this contract. The Postal Service will make payment in accordance with the Prompt Payment Act (31 U.S.C. 3903) and 5 CFR 1315. Payments under this contract may be made by the Postal Service either by electronic funds transfer (EFT), check, or government credit card at the option of the Postal Service. When the EFT payment method is selected, the Postal Service will provide the supplier with Form 3881, Supplier's Electronic Funds Transfer Enrollment Form, at contract award. The supplier must complete the form and submit it to the designated Postal Accounting Service Center to ensure the proper routing of payments.

2. In conjunction with any discount offered for early payment, time will be computed from the date of the invoice. For purposes of computing the discount earned, payment will be considered to have been made on the date which appears on the payment check or the date on which an electronic funds transfer was made.

j. Risk of Loss. Unless the contract specifically provides otherwise, risk of loss or damage to the supplies provided under this contract will remain with the supplier until, and will pass to the Postal Service upon:

1. Delivery of the supplies to a carrier, if transportation is f.o.b. origin, or;

2. Delivery of the supplies to the Postal Service at the destination specified in the contract, if transportation is f.o.b. destination.

k. Taxes. The contract price includes all applicable federal, state, and local taxes and duties.

l. Termination for the Postal Services' Convenience. The Postal Service reserves the right to terminate this contract, or any part hereof, for its sole convenience. In the event of such termination, the supplier must immediately stop all work and must immediately cause any and all of its suppliers and subcontractors to cease work. Subject to the terms of this contract, the supplier will be paid a percentage of the work performed prior to the notice of termination, plus reasonable charges the supplier can demonstrate to the satisfaction of the Postal Service using its standard record keeping system, have resulted from the termination. The supplier will not be paid for any work performed or costs incurred which reasonably could have been avoided.

m. Termination for Default. The Postal Service may terminate this contract, or any part hereof, for default by the supplier, or if the supplier fails to provide the Postal Service, upon request, with adequate assurances of future performance. In the event of termination for default, the Postal Service will not be liable to the supplier for any amount of supplies or services not accepted, and the supplier will be liable to the Postal Service for any and all rights and remedies provided by law. The debarment, suspension, or ineligibility of the supplier, its partners, officers, or principal owners under the Postal Service's procedures (see 39 CFR Part 601) may constitute an act of default under this contract, and such act will not be subject to notice and cure pursuant to any termination of default provision of this contract. If it is determined that the Postal Service improperly terminated this contract for default, such termination will be deemed a termination for convenience.

n. Title. Unless specified elsewhere in this contract, title to items furnished under this contract will pass to the Postal Service upon acceptance, regardless of when or where the Postal Service takes physical possession.

o. Warranty. The supplier warrants and implies that the items delivered under this contract are merchantable and fit for the use for the particular purpose described in this contract.

p. Limitation of Liability. Except as otherwise provided by an express or implied warranty, the supplier will not be liable to the Postal Service for consequential damages resulting from any defect or deficiencies in accepted items.

q. Other Compliance Requirements. The supplier will comply with all applicable Federal, State, and local laws, executive orders, rules and regulations applicable to its performance under this contract.

r. Order of Precedence. Any inconsistencies in this solicitation or contract will be resolved by giving precedence in the following order; (1) the schedule of supplies and services; (2) the Assignment, Disputes, Payments, Invoice, Other Compliances and Compliance with Laws Unique to the Postal Service Contracts



paragraphs of this clause; (3) the clause at 4-2 Contract Terms and Conditions Required to Implement Policies, Statutes or Executive Orders; (4) addenda to this solicitation provisions if this is a solicitation; (6) other paragraphs of this clause; (7) Form 8203; (8) other documents, exhibits, and attachments, and (9) the specifications.

s. Incorporation by Reference. Wherever in this solicitation or contract a standard provision or clause is incorporated by reference, the incorporated term is identified by its title, the provision or clause number assigned to it in the Postal Service Supplying Practices and Principles and its date. The text of incorporated terms may be found at <http://about.usps.com/manuals/spp/spp.pdf>. The following clauses are incorporated in the contract by reference:

1. B-1, Definitions
2. B-9, Claims and Disputes
3. B-15, Notice of Delay
4. B-16, Suspensions
5. B-19, Excusable Delay
6. B-30, Permits and Responsibilities

t. Shipping. The supplier must deliver goods that meet the prescribed physical limitations of the current U.S Postal Service Domestic Mail Manual either by its own personnel/equipment or by use of the United States Postal Service, unless the contracting officer grants a waiver of this requirement. The supplier is responsible for ensuring that the packing and packaging are sufficient to protect the goods and ensure usability upon receipt.

CLAUSE 4-2: Contract Terms and Conditions Required to Implement Policies, Statutes or Executive Orders (June 2020)

a. Incorporation by Reference

(1) Wherever in this solicitation or contract a standard provision or clause is incorporated by reference, the incorporated term is identified by its title, the provision or clause number assigned to it, in the Postal Service Supplying Practices, and its date. The text of incorporated terms may be found at <http://about.usps.com/manuals/spp/spp.pdf>. The following clauses are incorporated in this contract by reference:

- (a) Clause B-9, Claims and Disputes
- (b) Clause B-25, Advertising of Contract Awards
- (c) Clause 1-5, Gratuities or Gifts
- (d) Clause 7-10, Sustainability
- (e) Clause 9-1, Convict Labor
- (f) Clause 9-5, Contract Work Hours and Safety Standards Act - Safety Standards

(2) If checked, the following additional clauses are also incorporated in this contract by reference: (contracting officer will check as appropriate.)

- ☐ Clause 1-1: Privacy Protection
- ☐ Clause 1-6: Contingent Fees
- ☐ Clause 1-9: Preference for Domestic Supplies
- ☐ Clause 1-10: Preference for Domestic Construction Materials
- ☐ Clause 9-2: Contract Work Hours and Safety Standards Act — Overtime Compensation
- ☐ Clause 9-3: Davis-Bacon Act
- ☐ Clause 9-6: Walsh-Healey Public Contracts Act
- ☐ Clause 9-7: Equal Opportunity
- ☐ Clause 9-10: Service Contract Act
- ☐ Clause 9-11: Service Contract Act — Short Form
- ☐ Clause 9-12: Fair Labor Standards Act and Service Contract Act — Price Adjustments
- ☐ Clause 9-13: Equal Opportunity for Workers with Disabilities



☐ Clause 9-14: Equal Opportunity for VEVRAA Protected Veterans

☐ Clause 9-16: Employer Reports on Employment of Protected Veterans

b. Examination of Records:

(1) *Records* —“Records” includes books, documents, accounting procedures and practices, and other data, regardless of type and regardless of whether such items are in written form, in the form of computer data, or in any other form.

(2) *Examination of Costs* —If this is a cost-type contract, the supplier must maintain, and the Postal Service will have the right to examine and audit all records and other evidence sufficient to reflect properly all costs claimed to have been incurred or anticipated to be incurred directly or indirectly in performance of this contract. This right of examination includes inspection at all reasonable times of the supplier's plants, or parts of them, engaged in the performance of this contract.

(3) *Cost or Pricing Data* —If the supplier is required to submit cost or pricing data in connection with any pricing action relating to this contract, the Postal Service, in order to evaluate the accuracy, completeness, and currency of the cost or pricing data, will have the right to examine and audit all of the supplier's records, including computations and projections, related to:

- (a) The proposal for the contract, subcontract, or modification;
- (b) The discussions conducted on the proposal(s), including those related to negotiating;
- (c) Pricing of the contract, subcontract, or modification; or
- (d) Performance of the contract, subcontract or modification.

(4) *Reports* —If the supplier is required to furnish cost, funding or performance reports, the contracting officer or any authorized representative of the Postal Service will have the right to examine and audit the supporting records and materials, for the purposes of evaluating:

- (a) The effectiveness of the supplier's policies and procedures to produce data compatible with the objectives of these reports; and
- (b) The data reported.

(5) *Availability* —The supplier must maintain and make available at its office at all reasonable times the records, materials, and other evidence described in paragraphs a. through d. of this clause, for examination, audit, or reproduction, until 3 years after final payment under this contract or any longer period required by statute or other clauses in this contract. In addition:

- (a) If this contract is completely or partially terminated, the supplier must make available the records related to the work terminated until 3 years after any resulting final termination settlement; and
- (b) The supplier must make available records relating to appeals under Clause B-9: Claims and Disputes or to litigation or the settlement of claims arising under or related to this contract. Such records must be made available until such appeals, litigation or claims are finally resolved.

Note (Note to contracting officers: Any contemplated changes to this paragraph b. may not be made before:

- (i) consulting with assigned counsel and the Office of the Inspector General, and
- (ii) a deviation has been reviewed and approved by a higher level than the contracting officer who holds deviation approval authority.

c. *Payment Offsets*. As required by 31 U.S.C. 3716, the Postal Service participates in the Treasury Offset Program of the Department of Treasury's Financial Management Service. Payments under this contract are subject to offset in whole or in part to for the supplier's delinquent tax and non-tax debts owed to the United States and the states and for delinquent child support payments. Suppliers with questions concerning a payment offset should contact the Treasury Offset Program call center at 800-304-3107.

B-CLAUSE B-55: Standard References (March 2006)

a. All publications and other documents (such as manuals, handbooks, codes, standards, and specifications) cited in this contract for the purpose of establishing requirements applicable to equipment, materials, or workmanship are hereby incorporated by reference in the contract as fully as if printed and bound with the specifications of this contract, in accordance with the following:

(1) Wherever reference is made to standard Specifications of the Public Buildings Service, Interim Federal Specifications, Interim Amendments to Federal Specifications, Interim Federal Standards, or Interim Amendments to Federal Standards, the supplier must comply with the requirements set forth in the issue or edition identified in this contract except as modified or as otherwise provided in the specifications.



(2) Wherever reference is made to any document other than those specified in subparagraph a.1 above, the supplier must comply with the requirements set forth in the edition specified in this contract or, if not specified, the latest edition or revision, as well as the latest amendment or supplement in effect on the date of the solicitation except as modified by the specifications of this contract.

b. Federal Specifications, Federal Standards, and Standard Specifications of the Public Buildings Service can be obtained from the Business Service Center at any GSA Regional Office. Inquiries regarding "Commercial Standards," "Product Standards," and "Simplified Practice Recommendations" should be addressed to:

Office of Product Standards

National Bureau of Standards

Washington DC 23234-0001

Publications of associations referred to in the specifications can be obtained directly from the associations.

c. Upon request, the supplier must make available at the job site, within a reasonable time, a copy of any trade manual or standard incorporated by reference in this contract that governs quality and workmanship.

F-CLAUSE F-601: Definition of Terms Used in Contract Documents (March 2006)

a. Wherever in the contract documents the words "Post Office Department," "Department," "POD," "Post Office," "PO," "US Postal Service," "USPS," or words of like import are used, it must be understood that the "United States Postal Service" is intended.

b. "Contracting Officer" means the person administering this contract on behalf of the Postal Service as defined in the "Authorities and Limitations" letter.

c. The term "Contracting Officer's Representative" (COR), except as otherwise provided in the contract, means the authorized representative(s) of the Contracting Officer acting within the authority delegated by the Contracting Officer.

d. Terminology: When used in this contract, the word "must" is the imperative and defines a mandatory activity; the word "will" signifies intent or obligation; and "should" defines a desired but not required activity. "May" is permissive. "May not" and "no (person or thing) may" mean that the act described is prohibited.

e. A "Price Proposal Package" is the contractors' prepared document quoting a lump sum, firm fixed price and schedule for the completion of a Detailed Scope of Work as requested by the Postal Service. The Price Proposal shall also contain, when appropriate, approved drawings, permits, and other such documentation as the Postal Service may require for a particular Work Order.

f. Wherever in the contract documents "Project Engineer," "Resident Engineer," "Construction Manager," "Supervisory Authority," or other individual or organization is designated, it is understood that on-site representation for the Contracting Officer is intended. The functions and authorities of such an individual or organization are governed by a letter of authorization.

g. Where throughout the text of "Technical Provisions" of the contract documents, reference is made to "contractors," "general contractor," "installing contractor," "other contractors," "another contractor," "each contractor," "subcontractor," "site contractor," "this contractor," "supplier" or words of like import are used, it shall be understood that "contractor" is intended. Where certain special contractors are required to meet certain qualifications, obtain certain permits, or provide certain services particular to a specific skill or license, the word "contractor" prefixed by a specialty designation is intended to mean the specialty "subcontractor," e.g., fire protection subcontractor, mechanical or electrical subcontractor.

h. Where "as directed," "as required," "ordered," "prescribed," "approved," "acceptance," or words of similar nature are used, it must be understood that such words refer to actions to be taken, in writing, by the Contracting Officer unless otherwise stated. The words "necessary," "suitable," "equal," or words of like import must mean necessary or equal in the opinion of the Contracting Officer.

i. Work Order Completion Time is the period of time within which the contractor must complete the Scope of Work for a Work Order.

j. "Work" must be deemed to consist of all labor and operations, transportation, hoisting, materials, tools, equipment, services, inspections, investigations, coordination and supervision required and / or reasonably necessary to produce the construction required by the contract documents.

k. "Furnish" means the design, fabrication, purchase and delivery to the job site or other destination as directed by the Contracting Officer.

l. "Install or installation" means the act of physically placing, applying, setting, erecting, anchoring, securing, etc., construction materials, equipment, furnishings, appliances, and similar items specified and furnished at the job site. Installation of specified items must be complete in all respects.

m. "Provide" means to furnish and install construction material, equipment, etc., as defined above.

n. The technical specifications may indicate metric units of measurement as a supplement to U.S. customary units. When indicated thus: 1" (25 mm), the U.S. customary unit is specific and the metric unit is non-specific. When not shown with parentheses, the unit is specific. The metric units correspond to the "International System of Units (SI)" and generally follow ASTM E 380, "Standard for Metric Practice."

o. A Detailed Scope of Work is a document and related drawings, specifications, and writings referenced therein which set forth the specific requirements and work to be accomplished by the contractor in connection with a particular Work Order.

SUBCONTRACTING

CLAUSE 5-2: Subcontractor Cost or Pricing Data (March 2006)

a. Before awarding any subcontract or pricing any subcontract modification, the supplier must require the subcontractor to submit cost or pricing data whenever cost or pricing data are required by the Conduct Price/Cost Analysis topic of the Evaluate Proposals task of Process Step 2: Evaluate Sources, of the Postal Service *Supplying Practices*.

b. If the subcontractor is required to submit cost or pricing data under paragraph a above, then the supplier must insert the substance of this clause, including this paragraph b, in the subcontract.

B-CLAUSE B-46: Subcontracts (Construction) (March 2006)

a. Nothing in this contract may be construed to create any contractual relationship between any subcontractors, and the Postal Service. The divisions or sections of the specifications are not intended to control the supplier in dividing the work among subcontractor or to limit the work performed by any trade.

b. The supplier is responsible to the Postal Service for acts and omissions of its own employees and of subcontractors and their employees. The supplier is also responsible for the coordination of the work of the trades, subcontractors, and suppliers.

c. The Postal Service will not undertake to settle any differences among the supplier, subcontractors, or suppliers.

PROTECTION OF PERSONS AND PROPERTY**B-CLAUSE B-27: Performance at Occupied Postal Premises (March 2006)**

a. In performing this contract, the supplier must:

(1) Comply with applicable Occupational Safety and Health Standards (29 CFR 1910) promulgated pursuant to the authority of the Occupational Safety and Health Act of 1970;

(2) Comply with any other applicable federal, state, or local regulations governing work-place safety to the extent they do not conflict with a.1 above; and

(3) Take all other proper precautions to protect the safety and health of the supplier's employees, Postal Service employees, and the public.

b. The supplier must coordinate its use of the premises with the installation head or other representative designated by the contracting officer. Subjects of this coordination include the designation of work and storage areas; the extent, if any, of use by the supplier of Postal Service tools and equipment; the furnishing by the supplier of appropriate signs and barricades to exclude unauthorized personnel from the work areas and to call attention to hazards and dangers; and other matters relating to the protection of Postal Service employees and property.

B-CLAUSE B-28: Safety and Health Standards (March 2006)**Description**

a. Materials, supplies, articles, or equipment manufactured or furnished under this contract or order must conform to the Occupational Safety and Health Standards (29 CFR 1910) pursuant to authority in the Occupational Safety and Health Act of 1970 (OSHA), and to other safety and health requirements specified in this contract or order.

b. If no OSHA standard exists, federal or other nationally recognized standards apply. Copies of current Occupational Safety and Health Standards are available from regional and/or area offices of the U.S. Department of Labor, Occupational Safety and Health Administration.

c. If this contract or order contains a Postal Service standard and an OSHA standard covering the same general area of applicability, the Postal Service standard governs and takes precedence, unless the OSHA standard contains more rigorous or stringent safety requirements, in which case the OSHA standard governs and takes precedence.

d. Upon delivery of the first article under the contract or order, or if none, upon delivery of the first production quantity, the supplier must execute a certification in a form acceptable to the contracting officer, attesting to the conformance of the delivered items to the requirements of this clause.

B-CLAUSE B-38: Accident Prevention (March 2006) Modified

a. All construction work on this project must be performed in compliance with the Occupational Safety and Health Act of 1970 or with local or state occupational safety and health regulations enforced by an agency of the locality or state under a plan approved by the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA). Where requirements are different or in conflict, the more stringent requirement will apply.



b. The supplier will maintain an accurate record of exposure data and all accidents incident to work performed under this contract resulting in death, traumatic injury, occupational disease, or damage to property, material, supplies, or equipment. The supplier must report the exposure data and accidents as prescribed by the contracting officer.

c. Job Safety programs are required as follows:

(1) Within 30 days after receiving a notice to proceed, the supplier must submit to the contracting officer, in quintuplicate, a proposed job safety program designed to provide a system by which hazards on the project site will be controlled to minimize or eliminate occupational injuries or illnesses during performance of the contract.

(2) The proposed job safety program must state that subcontractors are required to comply with the general supplier's job safety rules and requirements issued under the authority of that program.

(3) The proposed job safety program must identify, by name, the supplier's representative responsible for the execution of the job safety program. The supplier's project safety representative must have the express written authority from the supplier to stop work, to abate hazardous conditions or unsafe practices, and to eject any supplier, subcontractor, or vendor employees from the project site for failure to comply with safety requirements.

(4) When conducting work at existing postal facilities, the job safety program must include the precautionary measures to be taken to protect postal employees and the public.

d. The authority, responsibilities, and duties of the supplier's project safety representative must be incorporated as part of the written job safety program.

e. In addition to the general requirements of Clause B-28 Safety and Health Standards, the supplier specifically must comply with applicable OSHA requirements concerning Hazard Communications Standards.

B-CLAUSE B-50: Protection of Existing Vegetation, Structures, Utilities, and Improvements (March 2006) Modified

a. The supplier will preserve and protect all existing vegetation (such as trees, shrubs, and grass) and structures on or adjacent to the site of work that are not to be removed and that do not unreasonably interfere with the construction work. Care will be taken in removing trees authorized by the contracting officer for removal, to avoid damage to vegetation that will remain in place. Any limbs or branches of trees broken during such operations or by the careless operation of equipment, or by workmen, will be trimmed with a clean cut and painted with an approved tree pruning compound as directed by the contracting officer. The supplier shall use guard posts or barriers as necessary to control vehicular traffic passing close to trees and/or shrubs to remain. Areas disturbed, such as temporary roadways or embankments, must be restored to near natural conditions that will permit the growth of vegetation. Disturbed areas must be graded and filled as required, covered with six inches of topsoil and landscaped as per the contract documents.

b. The supplier will protect from damage all existing improvements or utilities at or near the site of the work, the location of which is or should have been known, and will repair or restore any damage to these facilities resulting from failure to comply with the requirements of this contract or to exercise reasonable care in performing the work. If the supplier fails or refuses to repair any such damage promptly, the contracting officer may have the necessary work performed and charge the cost to the supplier.

c. The supplier will perform all work necessary to implement and accomplish a program to prevent environmental pollution during or as a result of work performed under this contract. As a minimum, the supplier's work must conform to all requirements of applicable federal, state, and local law. Requirements of the work must be incorporated in all subcontracts.

F-CLAUSE F-801: Access to Site (March 2006)

a. The contractor's access to the site and use of existing roads will be as directed by the Contracting Officer or a designee including issuing vehicle passes for construction and private vehicles.

b. The contractor's attention is directed to Provision 1-1, Contractor Screening Requirements, found elsewhere in this document, regarding the contractor's responsibilities for physical security.

c. Contractor employees shall not carry firearms or other deadly weapons onto any Postal Service site or into any facility, including in their personal or contractor vehicles. This supercedes any state or local law permitting the carrying of firearms or weapons. Violation of this clause shall be grounds for removal of individuals or contractors from the site or termination for default.

F-CLAUSE F-802: USDA Quarantined Areas (March 2006)

If the work called for by this contract involves activities in counties quarantined by the Department of Agriculture to prevent the spread of certain plant pests which may be present in the soil, the contractor agrees that all service equipment and tools to be moved from such counties shall be thoroughly cleaned of all soil residues at the work site with water under pressure. If this contract involves such a quarantined area, the contractor agrees to comply with the regulations of the Department of Agriculture. The contractor agrees to assure compliance with this obligation by all subcontractors.

F-CLAUSE F-803: Handling Asbestos and Other Hazardous Materials (March 2006)



Prior to the start of the work, the Postal Service will attempt to locate and remove any asbestos insulation, materials containing asbestos, PCB's, lead paint, and other hazardous materials that may be affected by the project. However, notwithstanding performance of this work, the contractor shall fully comply with the following requirements concerning any suspected asbestos and other hazardous materials potentially affected by performance of this work:

(a) The contractor shall assume that all insulation and floor tiles encountered in the performance of the work contain asbestos, unless otherwise advised by the Contracting Officer. Under no circumstances shall the contractor remove, cut, damage, or otherwise disturb any material potentially containing asbestos during the performance of work.

(b) Any questions or ambiguities concerning where asbestos or other hazardous material is located must be brought to the attention of the Contracting Officer immediately.

(c) When asbestos or other hazardous material is identified and requires removal, encapsulation or other protection, such removal, encapsulation or other protection must be performed only by a licensed, independent hazardous material removal contractor approved in writing by the Contracting Officer.

F-CLAUSE F-805: Job Safety Program (March 2006)

a. All on-site work under this contract shall be performed in compliance with the requirements of all Federal and State Occupational Safety and Health laws and regulations as they apply to construction activity. Where requirements are different or in conflict, the more stringent requirement will apply.

b. Not less than **ten (10)** days after the contractor receives the Notice to Proceed for this project, the contractor shall submit a preliminary Project Safety Program, and meet with the Postal Service to review the preliminary program and to discuss overall project safety requirements.

c. This program shall provide an aggressive action system by which hazardous conditions and unsafe practices shall be eliminated during the performance of this contract. Construction work under this contract shall not begin until the Project Safety Program has been concurred by the Postal Service. Postal Service concurrence shall not relieve the contractor of the responsibility for full compliance with all applicable statutory and regulatory requirements. In addition to compliance with applicable statutory and regulatory requirements, the Project Safety Program shall contain provisions for mandatory safety orientation for every contractor, subcontractor, and vendor employee assigned or sent to the site. Safety orientation shall cover as a minimum the rules and regulations governing on-site construction activities, special known hazards, accident prevention, emergency procedures, and personal protection equipment requirements. Upon completion of the safety orientation, each attendee will be issued an agreed upon hard hat sticker. No contractor, subcontractor or vendor employee will be allowed to enter or remain on-site without a hard hat bearing a valid safety orientation sticker.

d. Before construction begins, the contractor shall appoint a full time, on-site, Project Safety Director who shall be responsible for execution and enforcement of the contractor's approved Project Safety Program for this contract. He/she shall have the express authority from the contractor to stop work in order to abate hazardous conditions or unsafe practices, and to eject any contractor, subcontractor, or vendor employee from the project site for failure to comply with safety requirements. The Project Safety Director's authority, responsibilities, and duties shall be incorporated as part of the written Project Safety Program. The Project Safety Director's responsibilities shall include, but not be limited to conducting subcontractor preconstruction safety program reviews, conducting the employee safety orientation training, conducting weekly safety meetings, conducting daily site safety inspections, auditing subcontractor safety compliance, conducting accident investigations, and preparing required periodic and special safety reports. The Project Safety Director shall have no other duties other than safety. The Project Safety Director shall have at least five (5) years specific construction safety experience, and shall have a full understanding of the applicable Federal and State safety statutes and regulations. The contractor shall submit the Project Safety Director's qualifications and any collateral duties for approval. Once approved, the Project Safety Director shall not be reassigned or otherwise removed from the project site without Postal Service approval. Approval will not be granted by the Postal Service until an approved replacement is on-site and an adequate transfer of responsibilities has been affected.

e. The contractor will maintain an accurate record of exposure data and all accidents incident to work performed under this contract resulting in death, traumatic injury, occupational disease, or damage to property, material, supplies, or equipment. The contractor must report the exposure data and accidents as prescribed to the contracting officer within 24 hours.

f. All subcontracts and vendor purchase orders related to this project shall contain provisions requiring compliance with the contractor's approved Project Safety Program.

PAYMENTS

B-CLAUSE B-20: Invoices (March 2006)

a. The supplier's invoices must be submitted before payment can be made.

b. The supplier agrees that submission of an invoice to the Postal Service for payment is a certification that:

(1) Any services being billed for have been performed in accordance with the contract requirements; and

(2) Any supplies for which the Postal Service is being billed have been shipped or delivered in accordance with shipping instructions issued by the contracting officer in the quantities shown on the invoice, and that the supplies are in the quantity and of the quality designated in the contract.

c. To ensure prompt payment, an invoice must be submitted for each destination and each shipment. Each invoice must contain:

(1) The supplier's name and address;

(2) The contract number;



- (3) Any applicable task or delivery order number;
- (4) A description of the supplies or services and the dates delivered or performed;
- (5) The point of shipment or delivery;
- (6) Any applicable unit prices and extensions;
- (7) Shipping and payment terms; and
- (8) Any additional information required by the contract.

B-CLAUSE B-22: Interest (March 2006)

The Postal Service will pay interest on late payments and unearned prompt payment discounts in accordance with the Prompt Payment Act, 31 U.S.C. 3901 *et seq.*, as amended by the Prompt Payment Act Amendments of 1988, P.L. 100-496.

B-CLAUSE B-40: Construction Cost Breakdown (March 2006)

- a. Cost breakdown with proposal: If required by the contracting officer, the offeror must submit with its proposal a construction cost estimated breakdown on the attached form.
- b. Cost breakdown after award: If required by the contracting officer, the supplier must submit, within 15 calendar days after receiving the notice to proceed, a construction cost estimated breakdown on the sample forms, and instructions, provided in Section 01040, Division 1, General Requirements.

B-CLAUSE B-48: Payment (Construction) (March 2006) Modified

- a. The Postal Service will make progress payments monthly or at more frequent intervals as determined by the contracting officer. Bond costs may be included in the supplier's estimates without proration. Before the first progress payment becomes due, the supplier must prepare a breakdown of the contract price acceptable to the contracting officer. The values in the breakdown will be used for determining progress payments. The supplier's overhead and profit must be prorated through the life of the contract.
- b. If the contract price is more than \$50,000, material delivered that will be incorporated into the structure may be taken into consideration in computing progress payments. Before each payment is made, the supplier must furnish to the contracting officer proof of the quantity, value and delivery of materials, and deliver title to the materials to the Postal Service (see Clause B-20 for requirements of the invoice). Materials stored "off-site", when the contract price exceeds \$50,000, must be stored properly in an insured or bonded warehouse, storage yard, or similar place within 25 miles of the project site or a reasonable distance in excess of 25 miles as approved by the contracting officer.
- c. In making progress payments, the contracting officer will ordinarily retain ten (10) percent of the progress payments earned. However, if the contracting officer, at any time after 50 percent of the work has been completed, finds that satisfactory progress is being made, the contracting officer may authorize payment in full of all progress payment earned. Also, if the contracting officer considers the amount retained to be in excess of that adequate for the protection of the Postal Service, the contracting officer may release to the supplier all or a portion of the excess whenever the work is substantially complete. On completion and acceptance of each separate building, public work, or other division of the contract, on which the price is stated separately in the contract, payment may be made without retention except for warranties, "as-built" drawings, maintenance manuals, certifications, and release of liens.
- d. All material and work covered by progress payments will be the sole property of the Postal Service. However, this paragraph d does not (1) relieve the supplier of responsibility for all material and work for which payment has been made or for restoration of any damaged work or (2) waive the right of the Postal Service to require fulfillment of all the contract terms.
- e. Before receiving a progress payment or final payment under this contract, the supplier must certify to the contracting officer that payment due subcontractors or suppliers under contractual arrangements with them has been made from the proceeds of prior payments or will be made in timely fashion from the payment then due the supplier.
- f. Upon completion and acceptance of all work, the amount due the supplier under this contract must be paid upon the presentation of a properly executed invoice, after the supplier has furnished the Postal Service with a release of all claims against the Postal Service arising by virtue of this contract, other than claims in stated amounts that must be specifically excepted by supplier from the operation of the release. If the supplier's claim to amounts payable under the contract has been assigned as provided in the Assignment of Claims clause, a release may also be required of the assignee.
- g. The requirements of this clause apply separately to this contract.
- h. Only one payment will be made for contracts of \$25,000 or less or for a contract with a completion time of 30 days or less.

F-CLAUSE F-902: Assignment of Claims (March 2006)

- a. If this contract provides for payments aggregating \$10,000 or more, claims for monies due or to become due from the Postal Service under it may be assigned to a bank, trust company, or other financing institution, including any federal lending agency, and may thereafter be further assigned and reassigned to any such



institution. Any assignment or reassignment must cover all amounts payable and must not be made to more than one party, except that assignment or reassignment may be made to one party as agent or trustee for two or more parties participating in financing this contract. No assignment or reassignment will be recognized as valid and binding upon the Postal Service unless a written notice of the assignment or reassignment, together with a true copy of the instrument of assignment, is filed with:

- (1) The Contracting Officer;
- (2) The surety or sureties upon any bond; and
- (3) The office, if any, designated to make payment, and the Contracting Officer has acknowledged the assignment in writing.

b. Assignment of this contract or any interest in this contract other than in accordance with the provisions of this clause will be grounds for termination of the contract for default at the option of the Postal Service.

CHANGES/CLAIMS/DISPUTES

CLAUSE 5-1: Price Reduction for Defective Cost or Pricing Data (March 2006)

a. If any price, including profit or fee, negotiated in connection with this contract, or modification to this contract, or any cost reimbursable under this contract, was increased by any significant amount because:

- (1) The supplier or subcontractor furnished cost or pricing data that were not complete, accurate, and current as of the date of the final agreement on price;
- (2) A subcontractor or prospective subcontractor furnished the supplier cost or pricing data that were not complete, accurate, and current as of the date of final agreement on price; or
- (3) Any of these parties furnished data of any description that were not accurate - then the price or cost will be reduced accordingly and the contract will be modified to reflect the reduction.

b. Any reduction in the contract price under paragraph a above due to defective data from a prospective subcontractor that was not awarded the subcontract will be limited to the amount, plus applicable overhead and profit markup, by which the actual subcontract, or the actual cost to the supplier if there was no subcontract, was less than the prospective subcontract cost estimate submitted by the supplier (provided that the actual subcontract price was not itself affected by defective cost or pricing data).

B-CLAUSE B-10: Pricing of Adjustments (March 2006)

When costs are a factor in determining any contract price adjustment under the *Changes* clause or any other provision of this contract, the Conduct Price/Cost Analysis topic of the Evaluate Proposals task of Process Step 2: Evaluate sources in the Postal Service Supplying Principles and Practices in effect on the date of this contract will serve as a guide in negotiating the adjustment.

B-CLAUSE B-21: Change Order Accounting (March 2006)

The contracting officer may require change-order accounting whenever the estimated cost of a change or series of related changes exceeds \$100,000. The supplier, for each change or series of related changes, must maintain separate accounts, by job order or other suitable accounting procedure, of all incurred segregable, direct costs (less allocable credits) or work, both changed and not changed, allocable to the change. The supplier will maintain such accounts until the parties agree to an equitable adjustment for the changes ordered by the contracting officer or the matter is finally disposed of in accordance with the Claims and Disputes clause.

B-CLAUSE B-3: Contract Type (March 2006) Fixed Price Construction

This is a Firm-fixed price contract.

B-CLAUSE B-32: Differing Site Conditions (March 2006) Modified

a. The supplier must promptly, and before such conditions are disturbed, notify the contracting officer in writing of:

- (1) Subsurface or latent physical conditions at the site differing materially from those indicated in this contract; or
- (2) Unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this contract.



b. The contracting officer shall promptly investigate the conditions, and if such conditions do materially so differ and will cause an increase or decrease in the supplier's cost of, or the time required for, performance of any part of the work under this contract, whether or not changed as a result of such conditions, an equitable adjustment shall be made and the contract modified in writing accordingly.

c. No claim of the supplier under this clause shall be allowed unless the supplier has given the notice required in (a) above; provided however; the time prescribed thereof may be extended by the Postal Service.

d. No claim by the supplier for an equitable adjustment under this clause will be allowed if asserted after final payment under this contract.

e. No claim by the supplier for an equitable adjustment under this clause will be allowed when the site and subsurface investigation, and foundation design have been provided by the supplier or his agents.

B-CLAUSE B-37: Changes (Construction) (March 2006)

a. The contracting officer may at any time, without notice to any sureties, by written order designated or indicated to be a change order, make changes in the work within the general scope of the contract, including changes:

1. In the specifications (including drawings and designs);
2. In the method or manner of performance of the work;
3. In the Postal Service-furnished facilities, equipment, materials, services, or site; or
4. Directing acceleration in the performance of the work.

b. Any other written or oral order (which, as used in this paragraph b, includes direction, instruction, interpretation, or determination) from the contracting officer that causes a change will be treated as a change order only if the supplier gives the contracting officer written notice stating (1) the date, circumstances, and source of the order and (2) that the supplier regards the order as a change order. This notification must be delivered to the contracting officer within 30 days of receipt of the change order.

c. If any change under this clause causes an increase or decrease in the supplier's cost of, or the time required for, the performance of any part of the work under this contract, whether or not changed by any order, the contracting officer will make an equitable adjustment and modify the contract in writing. However, except for claims based on defective specifications, no claim for any change under paragraph b above will be allowed for any costs incurred more than 20 days before the supplier gives written notice as required. In the case of defective specifications for which the Postal Service is responsible, the equitable adjustment will include any increased cost reasonably incurred by the supplier in attempting to comply with the defective specifications.

d. No claim by the supplier for an equitable adjustment will be allowed if asserted after final payment under this contract.

e. See also Clause B-10, *Pricing of Adjustments* (May 2005).

B-CLAUSE B-9: Claims and Disputes (March 2006)

a. This contract is subject to the Contract Disputes Act of 1978 (41 U.S.C. 7101-7109) ("the Act" or "CDA").

b. Except as provided in the Act, all disputes arising under or relating to this contract must be resolved under this clause.

c. "Claim," as used in this clause, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to this contract. However, a written demand or written assertion by the supplier seeking the payment of money exceeding \$100,000 is not a claim under the Act until certified as required by subparagraph d(2) below. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim under the Act. The submission may be converted to a claim under the Act by complying with the submission and certification requirements of this clause, if it is disputed either as to liability or amount is not acted upon in a reasonable time.

d. 1. A claim by the supplier must be made in writing and submitted to the contracting officer for a written decision. A claim by the Postal Service against the supplier is subject to a written decision by the contracting officer.

2. For supplier claims exceeding \$100,000, the supplier must submit with the claim the following certification:

"I certify that the claim is made in good faith, that the supporting data are accurate and complete to the best of my knowledge and belief, that the amount requested accurately reflects the contract adjustment for which the supplier believes the Postal Service is liable, and that I am duly authorized to certify the claim on behalf of the supplier."

3. The certification may be executed by any person duly authorized to bind the supplier with respect to the claim.

e. For supplier claims of \$100,000 or less, the contracting officer must, if requested in writing by the supplier, render a decision within 60 days of the request. For supplier-certified claims over \$100,000, the contracting officer must, within 60 days, decide the claim or notify the supplier of the date by which the decision will be made.

f. The contracting officer's decision is final unless the supplier appeals or files a suit as provided in the Act.



g. When a CDA claim is submitted by or against a supplier, the parties by mutual consent may agree to use an alternative dispute resolution (ADR) process to assist in resolving the claim. A certification as described in d (2) of this clause must be provided for any claim, regardless of dollar amount, before ADR is used.

h. The Postal Service will pay interest in the amount found due and unpaid from:

1. The date the contracting officer receives the claim (properly certified, if required); or
2. The date payment otherwise would be due, if that date is later, until the date of payment.

i. Simple interest on claims will be paid at a rate determined in accordance with the *Interest* clause.

j. The supplier must proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal, or action arising under the contract, and comply with any decision of the contracting officer.

F-CLAUSE F-1004: Equitable Adjustments (Construction) (March 2006)

a. The contractor's written statement of the monetary extent of any claim for equitable adjustment under this contract must be submitted in the form of a lump sum proposal (unless otherwise requested) with an itemized breakdown of all increases or decreases in the cost of the contractor's and all subcontractors' work, in at least the following detail:

1. Material quantities and unit cost
2. Labor costs (identified with specific item of material to be placed or operation to be performed)
3. Construction Equipment
4. Workmen's Compensation and Public Liability Insurance
5. Overhead
6. Profit
7. Employment taxes under FICA, Medicare, and FUTA

b. The overhead, profit and commission percentages included in the proposal, must not exceed the maximums given at the end of this paragraph, and will be considered to include, but not be limited to, insurance other than that mentioned in this "Equitable Adjustments" clause, bond or bonds, use of small tools, incidental job burdens, and general office expense. No percentages for overhead, profit or commission will be allowed on employment taxes under FICA, Medicare, and FUTA. The percentages for overhead, profit and commission will be negotiated and may vary according to the nature, extent and complexity of the work involved, but not to exceed the maximum percentages shown below. Not more than three percentages will be allowed regardless of the number of tiers of subcontractors; that is, the markup on work subcontracted by a subcontractor will be limited to one overhead percentage and one profit percentage in addition to the prime contractor's commission percentage. On proposals covering both increases and decreases in the amount of the contract, the overhead, profit, and where applicable, commission, will be computed on the net change only. On proposals for decreases in the amount of the contract, the overhead, profit, and where applicable, commission will be added to the decrease in direct cost.

	Overhead	Profit	Commission
To contractor on work performed by other than his own forces	0%	0%	10%
To contractor and / or the subcontractors for the portion of work performed with their respective forces	10%	10%	0%

c. The contractor must submit a request for time extension (if any) with its proposal.

d. In considering a proposal, the Postal Service will check estimates in detail, utilizing unit prices where specified or agreed upon, with a view to arriving at an equitable adjustment.

e. After receipt of a proposal with a detailed breakdown, the contracting officer will act promptly thereon, provided, however, that when the necessity to proceed with a change does not allow sufficient time to check a proposal, or in the event of failure to reach agreement on a proposal, the Postal Service may order the contractor to proceed on the basis of price to be determined at the earliest practicable date but not to be more than the increase or less than the decrease proposed.

f. The contractor must submit all claims for equitable adjustment for differing site conditions in accordance with and subject to the requirements and limitations set forth in the "Differing Site Conditions" clause and in this "Equitable Adjustments" clause. All other claims for equitable adjustment submitted by the contractor under this contract will be subject to the requirements and limitations set forth in this clause.

g. Upon written request by the contracting officer, the contractor must submit a proposal, in accordance with the requirements and limitations set out in paragraphs (a) through (g) of this "Equitable Adjustments" clause, for work involving contemplated changes covered by the request, within the time limit indicated in the request or any extension of such time limit as may be subsequently granted. If, within a reasonable time after receipt of such a proposal, the contracting officer orders the contractor to proceed with the performance of the work contemplated, the proposal submitted prior to the order will constitute the contractor's statement of the monetary extent of claim for equitable adjustment.



TERMINATIONS

PROVISION 4-1: Standard Solicitation Provisions (June 2020)

a. Submission of Offers. Submit signed and dated offers to the office specified in this solicitation at or before the exact time specified on this solicitation. Offers may be submitted on PS Form 8203, Order/ Solicitation/Offer/Award, letterhead stationery, or as otherwise specified in the solicitation. As a minimum offers must show:

- (1) Solicitation number;
- (2) The name, address and telephone number of the offeror;
- (3) A technical description of the items being offered in sufficient detail to evaluate compliance with the requirements in the solicitation. This may include product literature, or other documents, if necessary;
- (4) Terms of any expressed warranty;
- (5) Price and any discount terms;
- (6) "Remit to" address, if different than mailing address;
- (7) A completed copy of the representations and certifications;
- (8) Acknowledgment of Solicitation Amendments;
- (9) Past performance information, when included as an evaluation factor, to include recent and relevant contracts for the same or similar items, and other references (including contract numbers, point of contact, with telephone numbers, and other relevant information); and
- (10) If the offer is not submitted on PS Form 8203, include a statement specifying the extent of agreement with all terms and conditions and provisions included in the solicitation. Offers that fail to furnish required representations or information, or reject the terms and conditions of the solicitation, may be excluded from consideration.

b. Business Disagreements. Business disagreements may be lodged with the Supplier Disagreement Resolution (SDR) Official if the supplier and the contracting officer have failed to resolve the disagreement as described in [39 CFR Section 601](#). The SDR Official will consider the disagreement only if it is lodged in accordance with the time limits and procedures described in 39 CFR Section 601. The SDR Official's decisions are available for review at www.usps.com.

c. Product Samples. When required by the solicitation, product samples must be submitted at or prior to the time specified for receipt of offers. Unless otherwise specified in the solicitation, these samples must be submitted at no expense to the Postal Service and returned at the sender's request and expense, unless they are destroyed during preaward testing.

d. Multiple Offers. Offerors are encouraged to submit multiple offers presenting alternative terms and conditions or commercial items for satisfying the requirements of this solicitation. Each offer submitted will be evaluated separately.

e. Late Offers. Offers or modifications of offers received at the address specified for the receipt of offers after the exact time specified for receipt of offers will not be considered unless determined to be in the best interests of the Postal Service.

f. Type of Contract. The Postal Service plans to award a _____ contract (contracting officer insert type of contract; see the [Select Contract Type](#) topic of the Develop Sourcing Strategy task of [USPS Supplying Practices Process Step 2: Evaluate Sources](#)) under this solicitation, and all proposals must be submitted on this basis. Alternate proposals based on other contract types will ___ will not ___ be considered.

g. Contract Award. The Postal Service may evaluate offers and award a contract without discussions with offerors. Therefore, the offeror's initial offer should contain the offeror's best terms from a price and technical standpoint. Discussions may be conducted if the Postal Service determines they are necessary. The Postal Service may reject any or all offers if such action is in the best interest of the Postal Service; accept other than the lowest offer, and waive informalities and minor irregularities in offers received.

h. Multiple Awards. The Postal Service may accept any item or group of items of an offer, unless the offeror qualifies the offer by specific limitations. Unless otherwise provided in the Schedule, offers may not be submitted for quantities less than those specified. The Postal Service reserves the right to make an award on any items for quantity less than the quantities offered, at the unit prices offered, unless the offeror specifies otherwise in the offer.

i. Incorporation by Reference. Wherever in this solicitation or contract a standard provision or clause is incorporated by reference, the incorporated term is identified by its title, the provision or clause number assigned to it, and its date. The text of incorporated terms may be found at <https://about.usps.com/manuals/pm/welcome.htm>.

If checked, the following provision is incorporated in this solicitation by reference: (contracting officer will check as appropriate.)

___ [Provision 9-15: Compliance Veterans' Employment Reprting Requirements](#)

F-CLAUSE F-1101: Termination for Convenience (March 2006)



a. Performance under this contract may be terminated by the Postal Service in whole or in part whenever the Contracting Officer determines that termination is in the best interest of the Postal Service. A termination may be effected by delivery to the supplier of a notice of termination specifying the extent of work terminated, and the effective date of the termination.

b. Upon receipt of a notice of termination, unless otherwise directed by the Contracting Officer, the supplier must take the following actions:

- (1) Stop work to the extent specified in the notice.
- (2) Place no further orders or subcontracts for materials, services, or facilities except as may be necessary for completion of the unterminated work.
- (3) Terminate all orders and subcontracts to the extent that they relate to the work terminated.
- (4) Assign to the Postal Service, as directed by the Contracting Officer, all right, title, and interest of the supplier under the orders and subcontracts terminated. The Postal Service has the right, in its discretion, to settle or pay claims arising out of these terminations.
- (5) Settle all outstanding liabilities and claims arising out of the termination of orders and subcontracts, with the approval or ratification of the Contracting Officer. The Contracting Officer's decision is final for the purposes of this clause.
- (6) Transfer title to the Postal Service and deliver as directed by the Contracting Officer:
 - (a) Work in process, completed work, and other material produced as a part of or acquired for the work terminated; and
 - (b) The completed or partially completed plans, drawings, information, and other property that, if the contract had been completed, would have been furnished to the Postal Service.
- (7) Use its best efforts to sell, as directed by the Contracting Officer, any property of the types referred to in subparagraph b.6 above, provided that the supplier may acquire property under the conditions prescribed and at prices approved by the Contracting Officer, and the proceeds of any such transfer will be applied in reduction of any payments to be made by the Postal Service to the supplier, or be credited to the price or cost of the work covered by this contract, or be paid in any manner directed by the Contracting Officer.
- (8) Complete performance of the work not terminated.
- (9) Take any action that may be necessary, or that the Contracting Officer may direct, for protecting and preserving any property related to this contract that is in the possession of the supplier and in which the Postal Service has or may acquire an interest.

c. At any time, the supplier may submit to the Contracting Officer a list, certified as to quantity and quality, of termination inventory not previously disposed of and may request the Postal Service to remove inventory items or enter into a storage agreement covering them. Not later than 15 days after receiving this request, the Postal Service will accept title to the items and remove them or enter into a storage agreement. The list will be subject to verification by the Contracting Officer upon removal of the items or, if the items are stored, within 45 days after submission of the list.

d. After termination, the supplier must submit to the Contracting Officer a termination claim in the form and with the certification prescribed by the Contracting Officer. The claim must be submitted promptly, but in no event more than one year after the effective date of termination, unless an extension in writing is granted by the Contracting Officer. However, if the Contracting Officer determines that the facts justify such action, any termination claim may be received and acted upon at any time after the one-year period. Upon failure of the supplier to submit a termination claim within the time allowed, the Contracting Officer may determine, on the basis of the information available, the amount, if any, due the supplier by reason of the termination and will pay that amount.

e. If the supplier and the Contracting Officer fail to agree on the amount to be paid to the supplier by reason of the termination, the Contracting Officer will determine the amount, if any, due the supplier and pay the supplier the contract price for completed and accepted supplies or services not previously paid for (adjusted for any saving of freight and other charges) and, with respect to all other contract work performed before the effective date of termination, the total of:

- (1) The cost of such work;
- (2) The cost of settling and paying claims arising out of the termination of work under subcontracts; and
- (3) A profit on e.1 above, determined by the Contracting Officer to be fair and reasonable; but if it appears that the supplier would have sustained a loss on the entire contract had it been completed, no profit will be included, and an appropriate adjustment will be made reducing the amount of the settlement to reflect the indicated rate of loss.

f. The total sum to be paid to the supplier may not exceed the total contract price as reduced by the payments made and as further reduced by the contract price of work not terminated. Except for normal spoilage, and except to the extent that the Postal Service expressly assumed the risk of loss, there will be excluded from the amounts payable to the supplier under paragraph e above, the fair value, as determined by the Contracting Officer, of property destroyed, lost, stolen, or damaged so as to become undeliverable to the Postal Service, or to a buyer.

g. Any determination of costs will be governed by the cost principles set forth in the USPS Supplying Principles and Practices in effect on the effective date of termination.

h. The supplier has the right of review under the "Claims and Disputes" clause of any determination made by the Contracting Officer under paragraph d or e above, except that, if the supplier has failed to submit its termination claim within the time provided in paragraph d above and has failed to request an extension of time, there may be no right of review.

i. In arriving at the amount due the supplier, there must be deducted:

- (1) All unliquidated advance or other payments to the supplier applicable to the terminated portion of this contract;
- (2) Any claim that the Postal Service may have against the supplier under this contract; and



(3) The agreed price for or the proceeds of sale of materials, supplies, or other things kept by the supplier or sold and not recovered by or credited to the Postal Service.

j. If the termination is partial, the supplier must file with the Contracting Officer a request in writing for an equitable adjustment of the price specified in the contract relating to the continued portion of the contract.

k. The Postal Service may, under the terms and conditions it prescribes, make partial payments and payments on account in connection with the terminated portion of this contract whenever the aggregate of these payments is within the amount to which the supplier is entitled.

l. Unless otherwise provided in this contract, or by statute, the supplier, for a period of three years after final settlement, must preserve and make available to the Postal Service at all reasonable times at the supplier's office, all books, records, documents, and other evidence bearing on the costs and expenses of the supplier under this contract and relating to the work terminated. At the Contracting Officer's approval, photographs, microphotographs, or other authentic reproductions may be maintained instead of the originals.

F-CLAUSE F-1102: Termination for Default (March 2006)

a.

(1) The Postal Service may, subject to paragraphs c and d below, by written notice of default to the supplier, terminate this contract in whole or in part if the supplier fails to:

(a) Complete the requirements of this contract within the time specified in the contract or any extension;

(b) Make progress, so as to endanger performance of this contract (but see paragraph d below); or

(c) Perform any of the other provisions of this contract (but see subparagraph a.2 following).

(2) The Postal Service's right to terminate this contract under a. 1(b) and (c) above may be exercised if the supplier does not cure the failure within ten days (or more if authorized in writing by the Contracting Officer) after receipt of the notice from the Contracting Officer specifying the failure.

b. If the Postal Service terminates this contract in whole or in part, it may acquire similar supplies or services or complete the work, and the supplier will be liable to the Postal Service for any excess costs. However, the supplier must continue the work not terminated.

c. Except for defaults of subcontractors at any tier, the supplier is not liable for any excess costs if the failure to perform the contract arises from causes beyond the control and without the fault or negligence of the supplier.

d. If the failure to perform is caused by the default of a subcontractor at any tier, and if the cause of the default is beyond the control of both the supplier and subcontractor, and without the fault or negligence of either, the supplier is not liable for any excess costs for failure to perform, unless the subcontractor supplies or services were obtainable from other sources in sufficient time for the supplier to meet the required delivery schedule.

e. If this contract is terminated for default, the Postal Service may require the supplier to transfer title and deliver to the Postal Service, as directed by the Contracting Officer, any completed supplies, partially completed supplies, and materials, parts, tools, dies, jigs, fixtures, plans, drawings, information, and contract rights that the supplier has specifically produced or acquired for the terminated portion of this contract. Upon direction of the Contracting Officer, the supplier must also protect and preserve property in its possession in which the Postal Service has an interest.

f. The Postal Service will pay the contract price for completed items delivered and accepted. The supplier and Contracting Officer may agree on the amount of payment for items delivered and accepted under paragraph e above for the protection and preservation of the property. Failure to agree will be a dispute under the "Claims and Disputes" clause. The Postal Service may withhold from these amounts any sum the Contracting Officer determines to be necessary to protect the Postal Service against loss because of outstanding claims.

g. If, after termination, it is determined that the supplier was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the termination had been issued for convenience.

h. The rights and remedies of the Postal Service under this clause are in addition to any other rights and remedies provided by law or under this contract.

INSPECTION AND ACCEPTANCE

B-CLAUSE B-33: Inspection and Acceptance (Construction) (March 2006) Modified

a. Except as otherwise provided in this contract, inspection and testing by the Postal Service of materials and workmanship shall be made at reasonable times and at the site of the work, unless the contracting officer determines that it shall be made at the place of production, manufacture, or shipment of such material. The contracting officer's decision shall be conclusive as to whether the material involved conforms to the contract requirements. Such off-site inspection or test shall not relieve the supplier of responsibility for damage to or loss of the material prior to acceptance, nor in any way affect the continuing rights of the Postal Service after acceptance of the completed work under the terms of paragraph f of this section.

b. The supplier shall without charge, replace any material or correct any workmanship found by the Postal Service not to conform to the contract requirements, unless the Postal Service consents to accept such material or workmanship with an appropriate adjustment in contract price. The supplier shall promptly segregate and remove rejected material from the premises.



- c. If the supplier does not promptly replace rejected material or correct rejected workmanship, the Postal Service may, by contract or otherwise, replace or correct it and charge the cost to the supplier.
- d. The supplier must furnish (without charge) all facilities, labor, and materials needed to conduct inspections and tests as required by the contracting officer. The supplier will be charged any additional costs of inspection if material and workmanship are not ready at the time specified by the supplier for inspection.
- e. The Postal Service may examine completed work by removing or tearing it out. The supplier must replace or correct any work found not to conform to contract requirements. If work is torn out and found to comply with contract requirements, the contracting officer must make an equitable adjustment for the services provided for the inspection and replacement of the work.
- f. The Postal Service will inspect the work as soon as practicable after completion. Acceptance by an authorized Postal Service representative is conclusive except in the case of latent defects, fraud, gross mistakes amounting to fraud, or Postal Service rights under any warranty or guarantee.
- g. The Postal Service may terminate this contract for default and seek any remedy allowed by law if the supplier does not maintain an acceptable inspection system or promptly follow Postal Service directions to replace or correct incorrect or defective items.

F-CLAUSE F-1201: Asbestos Free and Lead-Base Paint Free Certification (March 2006)

The contractor must certify that no asbestos containing building materials or lead-based paints (interior or exterior) were used in this project. The contractor must include completed and unaltered asbestos free and leadbased paint certifications as a closeout submittal document as provided in B.1500 - Attachments. The only acceptable alternative for asbestos certification is to conduct a post-construction asbestos survey in accordance with AHERA requirements.

F-CLAUSE F-1202: Project Closeout (Construction) (March 2006)

Unless specified for an earlier date elsewhere in this contract, the contractor must process all documents for each CONTRACT, changes, claim submissions, complete all project closeout items, and submit a final report certifying that this action has been taken not later than six months from the date of facility acceptance.

LABOR POLICIES

CLAUSE 1-11: Prohibition Against contracting with Former Officers or PCES Executives (March 2006)

During the performance of this contract, former Postal officers or Postal Career Executive Service (PCES) executives are prohibited from employment by the contractor as key personnel, experts or consultants, if such individuals, within 1 year after their retirement from the Postal Service, would be performing substantially the same duties as they performed during their career with the Postal Service.

CLAUSE 1-12: Use of Former Postal Service Employees (March 2006)

During the term of this contract, the supplier must identify any former Postal Service employees it proposes to be engaged, directly or indirectly, in contract performance. Such individuals may not commence performance without the contracting officer's prior approval. If the contracting officer does not provide such approval, the supplier must replace the proposed individual former employee with another individual equally qualified to provide the services called for in the contract.

CLAUSE 9-1: Convict Labor (March 2006)

In connection with the work under this contract, the supplier agrees not to employ any person undergoing sentence of imprisonment, except as provided by E.O. 11755, December 28, 1973, as amended and 18 USC 3621 and 3622

CLAUSE 9-13: Equal Opportunity for Workers with Disabilities (October 2019)

a. The supplier and subcontractors must abide by the requirements of 41 CFR 60-741.5(a). **This regulation prohibits discrimination against qualified individuals on the basis of disability, and requires affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified individuals with disabilities.**

b. Subcontracts. The supplier will insert the terms of this clause in subcontracts of \$10,000 or more unless exempted by rules, regulations, or orders of the Secretary of Labor. The supplier will act as specified by the Director, Office of Federal Contract Compliance Programs, to enforce the terms, including action for noncompliance. Such necessary changes in language may be made as appropriate to identify properly the parties and their undertakings.

CLAUSE 9-14: Equal Opportunity for VEVRAA Protected Veterans (June 2020)

- a. The supplier must comply with the rules, regulations, and relevant orders of the Secretary of Labor issued under the Vietnam Era Veterans' Readjustment Assistance Act of 1972 (the Act), as amended (38 U.S.C. 4211 and 4212).
- b. The supplier and subcontractor must abide by the requirements of [41 CFR 60-300.5\(a\)](#). **This regulation prohibits discrimination against qualified protected veterans, and requires affirmative action by covered prime suppliers and subcontractors to employ and advance in employment qualified protected veterans.**
- c. Subcontracts. The supplier will insert the terms of this clause in subcontracts of \$150,000 or more unless exempted by rules, regulations, or orders of the Secretary of Labor. The supplier will act as specified by the Director, Office of Federal Contract Compliance Programs, to enforce the terms, including action for noncompliance. Such necessary changes in language may be made as appropriate to identify properly the parties and their undertakings.

CLAUSE 9-2: Contract Work Hours and Safety Standards Act - Overtime Compensation (March 2006)

- a. No supplier or subcontractor contracting for any part of the contract work may require or permit any laborer or mechanic to work more than 40 hours in any workweek on work subject to the provisions of the Contract Work Hours and Safety Standards Act, unless the laborer or mechanic receives compensation at a rate not less than one-and-one-half times the laborer's or mechanic's basic rate of pay for all such hours worked in excess of 40 hours.
- b. *Violation, Liability for Unpaid Wages, and Liquidated Damages* —In the event of any violation of paragraph a. above, the supplier and any subcontractor responsible for the violation are liable to any affected employee for unpaid wages. The supplier and subcontractor are also liable to the Postal Service for liquidated damages, which will be computed for each laborer or mechanic at \$10 for each day on which the employee was required or permitted to work in violation of paragraph a. above.
- c. *Withholding for Unpaid Wages and Liquidated Damages* —The contracting officer may withhold from the supplier, from any moneys payable to the supplier or subcontractor under this or any other contract with the same supplier, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act held by the same supplier, sums as may administratively be determined necessary to satisfy any liabilities of the supplier or subcontractor for unpaid wages and liquidated damages pursuant to paragraph b. above.
- d. *Records* —The supplier or subcontractor must maintain for 3 years from the completion of the contract for each laborer and mechanic (including watchmen and guards) working on the contract payroll records which contain the name, address, social security number, and classification(s) of each such employee, hourly rates of wages paid, number of daily and weekly hours worked, deductions made, and actual wages paid. The supplier or subcontractor must make these records available for inspection, copying, or transcription by authorized representatives of the contracting officer and the Department of Labor, and must permit such representatives to interview employees during working hours on the job. (The Department of Labor information collection and record keeping requirements in this paragraph d. have been approved by the Office of Management and Budget under OMB control numbers 1215-0140 and 1215-0017.)
- e. *Subcontracts* —The supplier must insert paragraphs a. through d. of this clause in all subcontracts, and must require their inclusion in all subcontracts at any tier.

CLAUSE 9-3: Davis Bacon Act (March 2006)**a. Minimum Wages**

- (1) All mechanics and laborers employed in the contract work (other than maintenance work of a recurring, routine nature necessary to keep the building or space in condition to be continuously used at an established capacity and efficiency for its intended purpose) must be paid unconditionally, and not less than once a week, without deduction or rebate (except for deductions permitted by the Copeland Regulations (29 CFR Part 3)), the amounts due at the time of payment computed at rates not less than the aggregate of the basic hourly rates and rates of payments, contributions, or costs for any fringe benefits contained in the wage-determination decision of the Secretary of Labor, attached hereto, regardless of any contractual relationship alleged to exist between the lessor (for construction contracts, use "supplier" instead of "lessor"), or subcontractor and these laborers and mechanics. A copy of the wage-determination decision must be kept posted by the lessor at the site of the work in a prominent place where it can easily be seen by the workers.
- (2) The lessor may discharge its obligation under this clause to workers in any classification for which the wage-determination decision contains:
- (a) Only a basic hourly rate of pay, by making payment at not less than that rate, except as otherwise provided in the Copeland Regulations (29 CFR Part 3); or
- (b) Both a basic hourly rate of pay and fringe-benefit payments, by paying in cash, by irrevocably contributing to a fund, plan, or program for, or by assuming an enforceable commitment to bear the cost of, bona fide fringe benefits contemplated by 40 U.S.C. 276a, or by a combination of these.
- (3) Contributions made, or costs assumed, on other than a weekly basis (but not less often than quarterly) are considered as having been constructively made for a weekly period. When a fringe benefit is expressed in a wage determination in any manner other than as an hourly rate and the lessor pays a cash equivalent or provides an alternative fringe benefit, the lessor must furnish information with the lessor's payrolls showing how the lessor determined that the cost incurred to make the cash payment or to provide the alternative fringe benefit is equal to the cost of the wage-determination fringe benefits. When the lessor provides a fringe benefit different from that contained in the wage determination, the lessor must show how the hourly rate was arrived at. In the event of disagreement as to an equivalent of any fringe benefit, the contracting officer must submit the question, together with the contracting officer's recommendation, to the Secretary of Labor for final determination.
- (4) If the supplier does not make payments to a trustee or other third person, the supplier may consider as payment of wages the costs reasonably anticipated in providing bona fide fringe benefits, but only with the approval of the Secretary of Labor pursuant to a written request by the lessor. The Secretary of Labor may require the lessor to set aside assets in a separate account, to meet the lessor's obligations under any unfunded plan or program.



(5) The contracting officer will require that any class of laborers or mechanics not listed in the wage determination but to be employed under the contract will be classified in conformance with the wage determination and report the action taken to:

ADMINISTRATOR OF THE WAGE AND HOUR DIVISION

EMPLOYMENT STANDARDS ADMINISTRATION

US DEPARTMENT OF LABOR

WASHINGTON DC 20210-0001

for approval. The contracting officer will approve an additional classification and wage rate and fringe benefits therefore only if:

- (a) The work to be performed by the classification requested is not performed by a classification in the wage determination;
 - (b) The classification is utilized in the area by the construction industry; and
 - (c) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (6) If the lessor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate and fringe benefits therefore, the contracting officer must submit the question, together with the views of the interested parties and the contracting officer's recommendation, to the Wage and Hour Administrator for final determination. The Administrator or an authorized representative will, within 30 days of receipt, approve, modify, or disapprove every proposed additional classification action, or issue a final determination if the parties disagree, and so advise the contracting officer or advise that additional time is necessary. The finally approved wage rate (and fringe benefits if appropriate) must be paid to all workers performing work in the classification under the contract from the first day work is performed in the classification. The lessor must post a copy of the final determination of the conformance action with the wage determination at the site of the work. (The Department of Labor information collection and reporting requirements contained in subparagraph a.5 above and in this subparagraph a.6 have been approved by the Office of Management and Budget under OMB control number 1215-0140.)

b. Apprentices and Trainees

- (1) Apprentices may be permitted to work only when
- (a) registered, individually, under a bona fide apprenticeship program registered with a state apprenticeship agency recognized by the Bureau of Apprenticeship and Training, U.S. Department of Labor, or, if no such recognized agency exists in a state, under a program registered with the Bureau of Apprenticeship and Training; or
 - (b) if not individually registered in the program, certified by the Bureau of Apprenticeship and Training or state agency (as appropriate) to be eligible for probationary employment as an apprentice. Trainees may be permitted to work only if individually registered in a program approved by the Employment and Training Administration, U.S. Department of Labor.
- (2) The ratio of apprentices to journeymen or trainees to journeymen in any craft classification must not be greater than that permitted for the lessor's entire work force under the registered apprenticeship or trainee program. Apprentices and trainees must be paid at least the applicable wage rates and fringe benefits specified in the approved apprenticeship or trainee program for the particular apprentice's or trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. If the apprenticeship or trainee program does not specify fringe benefits, apprentices or trainees must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification unless the Administrator of the Wage and Hour Division determines that a different practice prevails. Any employee listed on a payroll at an apprentice or trainee wage rate but not registered, or performing work on the job site in excess of the ratio permitted under the registered program, must be paid the wage rate on the wage determination for the classification or work actually performed.
- (3) If the Bureau of Apprenticeship and Training or the state agency recognized by the Bureau (as appropriate) withdraws approval of an apprenticeship program, or if the Employment and Training Administration withdraws approval of a trainee program, the supplier will no longer be permitted to utilize apprentices or trainees (as appropriate) at less than the applicable predetermined rate for the work performed until an acceptable program is approved (See 29 CFR 5.16 for special provisions that apply to training plans approved or recognized by the Department of Labor prior to August 20, 1975.).
- (4) The utilization of apprentices, trainees, and journeymen must be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

c. Overtime Compensation

- (1) The lessor may not require or permit any laborer or mechanic employed on any work under this contract to work more than 40 hours in any workweek on work subject to the provisions of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-333), unless the laborer or mechanic receives compensation at a rate not less than one-and-one-half times the laborer's or mechanic's basic rate of pay for all such hours worked in excess of 40 hours.
- (2) For violations for subparagraph c.1 above, the lessor is liable for liquidated damages, which will be computed for each laborer or mechanic at \$10 for each day on which the employee was required or permitted to work in violation of subparagraph c.1 above
- (3) The contracting officer may withhold from the lessor sums as may administratively be determined necessary to satisfy any liabilities of the lessor for unpaid wages and liquidated damages pursuant to subparagraph c.2 above.

d. Payroll and Other Records

- (1) For all laborers and mechanics employed in the work covered by this clause, the lessor must maintain payrolls and related basic records and preserve them for a period of three years after contract completion. The records must contain the name, address, and social security number of each employee, the employee's correct classification, rate of pay (including rates of contributions for, or costs assumed to provide, fringe benefits), the daily and weekly number of hours worked, deductions made, and actual wages paid. Whenever the lessor has obtained approval from the Secretary of Labor to assume a commitment to bear the cost of



fringe benefits under subparagraph a.4, above, the lessor must maintain records showing the commitment and its approval, communication of the plan or program to the employees affected, and the costs anticipated or incurred under the plan or program. Lessors employing apprentices or trainees under approved programs must maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs. (The Department of Labor information collection and record keeping requirements in this subparagraph d.1 have been approved by the Office of Management and Budget under OMB control numbers 1215–0140 and 1215– 0017).

(2) The lessor must submit weekly, for each week in which any work covered by this clause is performed, a copy of all payrolls to the contracting officer. The lessor is responsible for the submission of copies of payrolls of all subcontractors. The copy must be accompanied by a statement signed by the lessor indicating that the payrolls are correct and complete, that the wage rates contained in them are not less than those determined by the Secretary of Labor, and that the classifications set forth for each laborer or mechanic conform with the work the laborer or mechanic performed. Submission of the Weekly Statement of Compliance (see 29 CFR 5.5(a)(3)(ii)) required under this agreement satisfies this requirement. As required by this clause, the lessor must submit a copy of any approval by the Secretary of Labor (The Department of Labor information collection and reporting requirements in this subparagraph d.2 have been approved by the Office of Management and Budget under OMB control number 1215–0149.).

(3) The lessor's records required under this clause must be available for inspection by authorized representatives of the contracting officer and the Department of Labor, and the lessor must permit the representative to interview employees during working hours on the job.

(4) The lessor must comply with the Copeland Regulations of the Secretary of Labor (29 CFR Part 3), which are hereby incorporated in this contract by reference.

e. Withholding of Funds: The Contracting Officer may withhold from the lessor under this or any other contract with the lessor so much of the accrued payments or advances as is considered necessary to pay all laborers and mechanics the full amount of wages required by this contract, or any other contract subject to the Davis–Bacon prevailing wage requirements that is held by the lessor.

f. Subcontracts

(1) If the lessor or any subcontractor fails to pay any laborer or mechanic employed on the site of the work any of the wages required by the contract, the contracting officer may, after written notice to the lessor, suspend further payments or advances to the lessor until violations have ceased.

(2) The lessor agrees to insert this clause, including this paragraph f, in all subcontracts hereunder. The term "lessor" as used in this clause in any subcontract, is deemed to refer to the lower–tier subcontractor.

g. Compliance with Davis–Bacon and Related Acts Requirements. All rulings and interpretations of the Davis–Bacon Act and related acts contained in 29 CFR Parts 1, 3, and 5 are hereby incorporated by reference in this contract.

h. Certification of Eligibility

(1) By entering into this contract, the lessor certifies that neither it nor any person or firm having an interest in the lessor is ineligible to be awarded contracts by virtue of section 3(a) of the Davis–Bacon Act or 29 CFR 5.12(a)(1).

(2) No part of this contract will be subcontracted to any person or firm ineligible for contract award by virtue of section 3(a) of the Davis–Bacon Act or 29 CFR 5.12(a)(1).

(3) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

i. Contract Termination and Debarment. A breach of this Davis–Bacon Act clause may be grounds for termination of the contract and debarment as a supplier and subcontractor as provided in 29 CFR 5.12.

j. Disputes Concerning Labor Standards: Disputes arising out of the labor standards provisions of this contract are not subject to the Claims and Disputes clause. They will be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5,6, and 7. Disputes within the meaning of this clause include disputes between the lessor (or any of its subcontractors) and the Postal Service, the U.S. Department of Labor, or the employees or their representatives.

CLAUSE 9-4: Compliance by States with Labor Standards (March 2006)

a. The supplier agrees to comply with the Contract Work Hours and Safety Standards Act — Overtime Compensation and Davis-Bacon Act clauses of this contract, to provide for similar compliance in subcontracts with states or political subdivisions thereof, and to insert the clauses in all subcontracts with private persons or firms.

CLAUSE 9-5: Contract Work Hours and Safety Standards Act - Safety Standards (March 2006)

a. To the extent that the work includes construction, alteration, repair, painting, or decorating, the lessor (for construction contracts, use "supplier" instead of "lessor") may not require any laborer or mechanic to work in surroundings or under conditions that are unsanitary, hazardous, or dangerous to the laborer's or mechanic's health or safety, as provided under standards promulgated by the Secretary of Labor under the authority of 40 U.S.C. 333 (see 29 CFR 1910 and 1926).

b. If the lessor fails to comply with this clause, the Postal Service, at its discretion, may cancel this contract, contract for the balance of the work or term, and charge to the lessor any additional costs incurred.

c. The lessor agrees to insert this clause, including this paragraph c., in all subcontracts and to require its inclusion in all subcontracts at any tier. The term "lessor," as used in this clause in any subcontract, is deemed to refer to the lower-tier subcontractor.

CLAUSE 9-7: Equal Opportunity (March 2006)

- a. The supplier may not discriminate against employees or applicants because of race, color, religion, sex, or national origin. The supplier will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to race, color, religion, sex, or national origin. This action must include, but not be limited to, employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The supplier agrees to post in conspicuous places, available to employees and applicants, notices provided by the contracting officer setting forth the provisions of this clause.
- b. The supplier must, in all solicitations or advertisements for employees placed by it or on its behalf, state that all qualified applicants will be considered for employment without regard to race, color, religion, sex, or national origin.
- c. The supplier must send to each union or workers' representative with which the supplier has a collective bargaining agreement or other understanding, a notice, provided by the contracting officer, advising the union or workers' representative of the supplier's commitments under this clause, and must post copies of the notice in conspicuous places available to employees and applicants.
- d. The supplier must comply with all provisions of Executive Order (EO) 11246 of September 24, 1965, as amended, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- e. The supplier must furnish all information and reports required by the Executive Order, and by the rules, regulations, and orders of the Secretary, and must permit access to the supplier's books, records, and accounts by the Postal Service and the Secretary for purposes of investigation to ascertain compliance with these rules, regulations, and orders.
- f. If the supplier fails to comply with this clause or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended, in whole or in part; the supplier may be declared ineligible for further contracts in accordance with the Executive Order; and other sanctions may be imposed and remedies invoked under the Executive Order, or by rule, regulation, or order of the Secretary, or as otherwise provided by law.
- g. The supplier must insert this clause, including this paragraph g., in all subcontracts or purchase orders under this contract unless exempted by Secretary of Labor rules, regulations, or orders issued under the Executive Order. The supplier must take such action with respect to any such subcontract or purchase order as the Postal Service may direct as a means of enforcing the terms and conditions of this clause (including sanctions for noncompliance), provided, however, that if the supplier becomes involved in, or is threatened with, litigation as a result, the supplier may request the Postal Service to enter into the litigation to protect the interest of the Postal Service.
- h. Disputes under this clause will be governed by the procedures in 41 CFR 60-1.1.

CLAUSE 9-8: Affirmative Action Compliance Requirements for Construction (March 2006)**a. Definitions:**

- (1) **Covered Area** —The geographical area described in the solicitation for this contract.
- (2) **Director** —Director, Office of Federal Contract Compliance Programs (OFCCP), United States Department of Labor, or any person to whom the Director delegates authority.
- (3) **Employer Identification Number** —The federal Social Security number used on the employer's quarterly federal tax return, U.S. Treasury Department Form 941.
- (4) **Minority** means:
- (a) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification);
- (b) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands);
- (c) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin); and
- (d) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race).
- b. If the supplier, or subcontractor at any tier, subcontracts a portion of the work involving any construction trade, each such subcontract in excess of \$10,000 must include this clause and the Notice containing the goals for minority and female participation stated in the solicitation for this.
- c. If the supplier is participating in a Hometown Plan (41 CFR 60-4) approved by the U.S. Department of Labor in a covered area, either individually or through an association, its affirmative action obligations on all work in the plan area (including goals) must comply with the plan for those trades that have unions participating in the plan. Suppliers must be able to demonstrate participation in, and compliance with, the provisions of the plan. Each supplier or subcontractor participating in an approved plan is also required to comply with its obligations under the Equal Opportunity clause, and to make a good-faith effort to achieve each goal under the plan in each trade in which it has employees. The overall good-faith performance by other suppliers or subcontractors toward a goal in an approved plan does not excuse any supplier's or subcontractor's failure to make good-faith efforts to achieve the plan's goals.
- d. The supplier must implement the affirmative action procedures set forth in paragraph g. below. The goals stated in the solicitation for this contract are expressed as percentages of the total hours of employment and training of minority and female utilization that the supplier should reasonably be able to achieve

in each construction trade in which it has employees in the covered area. If the supplier performs construction work in a geographical area located outside of the covered area, it must apply the goals established for the geographical area where that work is actually performed. The supplier is expected to make substantially uniform progress toward its goals in each craft.

e. Neither the terms and conditions of any collective bargaining agreement, nor the failure by a union with which the supplier has a collective bargaining agreement, to refer minorities or women will excuse the supplier's obligations under this clause, Executive Order (EO) 11246, as amended, or the regulations under the Executive Order.

f. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, apprentices and trainees must be employed by the supplier during the training period, and the supplier must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

g. The supplier must take affirmative action to ensure equal employment opportunity. The evaluation of the supplier's compliance with this clause will be based upon its effort to achieve maximum results from its actions. The supplier must document these efforts fully and implement affirmative action steps at least as extensive as the following:

(1) Ensure a working environment free of harassment, intimidation, and coercion at all sites and in all facilities where the supplier's employees are assigned to work. The supplier, if possible, will assign two or more women to each construction project. The supplier must ensure that foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the supplier's obligation to maintain such a working environment, with specific attention to minority or female individuals working at these sites or facilities.

(2) Establish and maintain a current list of sources for minority and female recruitment. Provide written notification to minority and female recruitment sources and community organizations when the supplier or its unions have employment opportunities available, and maintain a record of the organizations' responses.

(3) Establish and maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant, referrals of minorities or females from unions, recruitment sources, or community organizations, and the action taken with respect to each individual. If an individual was sent to the union hiring hall for referral and was not referred back to the supplier by the union or, if referred back, not employed by the supplier, this fact must be documented in the file, along with whatever additional actions the supplier may have taken.

(4) Immediately notify the Director when the union or unions with which the supplier has a collective bargaining agreement have not referred back to the supplier a minority or woman sent by the supplier, or when the supplier has other information that the union referral process has impeded the supplier's efforts to meet its obligations.

(5) Develop on-the-job training opportunities and/or participate in training programs for the area that expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the supplier's employment needs, especially those programs funded or approved by the Department of Labor. The supplier must provide notice of these programs to the sources compiled under subparagraph 2 above.

(6) Disseminate the supplier's equal employment policy by:

(a) Providing notice of the policy to unions and to training, recruitment, and outreach programs, and requesting their cooperation in assisting the supplier in meeting its contract obligations;

(b) Including the policy in any policy manual and in collective bargaining agreements;

(c) Publicizing the policy in such publications as the company newspaper and annual report;

Reviewing the policy with all management personnel and with all minority and female employees at least one a year; and

(d) Posting the policy on bulletin boards accessible to employees at each location where construction work is performed.

(7) Review, at least annually, the supplier's equal employment policy and affirmative action obligations with all employees having responsibility for hiring, assignment, layoff, termination, or other employment decisions. Conduct review of this policy with all on-site supervisory personnel before initiating construction work at a job site. A written record must be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

(8) Disseminate the supplier's equal employment policy externally by including it in any advertising in the news media, specifically including minority and female news media. Provide written notification to, and discuss this policy with, other suppliers and subcontractors which with the supplier does or anticipates doing business.

(9) Direct recruitment efforts, both oral and written, to minority, female, and community organizations, to schools with minority and female students, and to minority and female recruitment and training organizations serving the supplier's recruitment area and employment needs. Not later than one month before the date for acceptance of applications for apprenticeship or training by any recruitment source, send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

(10) Encourage present minority and female employees to recruit minority persons and women. When feasible, provide after-school, summer, and vacation employment to minority and female youth both on the site and in other areas of the supplier's workforce.

(11) Validate all tests and other selection requirements when required under 41 CFR 60-3.

(12) Conduct, at least annually, an inventory and evaluation of all minority and female personnel for promotional opportunities. Encourage these employees to seek or to prepare for, through appropriate training and other activities, opportunities for promotion.

(13) Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment-related activities to ensure that the supplier's obligations under this contract are being carried out.

(14) Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

(15) Maintain a record of solicitations for subcontracts for minority and female construction suppliers and suppliers, including circulation of solicitations to minority and female supplier associations and other business associations.

(16) Conduct a review, at least annually, of all supervisors' adherence to and performance under the supplier's equal employment policy and affirmative action obligations.

h. The supplier is encouraged to participate in voluntary associations that may assist in fulfilling one or more of the affirmative action obligations contained in paragraph g. above. The efforts of a supplier association, joint supplier-union, supplier-community, or similar group of which the supplier is a member and participant may be asserted as fulfilling one or more of its obligations under paragraph g. above, provided the supplier:

(1) Actively participates in the group;

(2) Makes every effort to ensure that the group has a positive impact on the employment of minorities and women in the industry;

(3) Ensures that concrete benefits of the program are reflected in the supplier's minority and female workforce participation;

(4) Makes a good-faith effort to meet its individual goals and timetables; and

(5) Can provide access to documentation that demonstrates the effectiveness of actions taken on behalf of the supplier. The obligation to comply is the supplier's, and failure of such a group to fulfill an obligation will not be a defense for the supplier's noncompliance.

i. A single goal for minorities and a separate single goal for women must be established. The supplier is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and nonminority. Consequently, the supplier may be in violation of EO 11246, if a particular group is employed in a substantially disparate manner.

j. The supplier may not use goals or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

k. The supplier may not enter into any subcontract with any person or firm debarred from government contracts under EO 11246.

l. The supplier must carry out such sanctions and penalties for violation of this clause and of the Equal Opportunity clause, including suspension, termination, and cancellation of existing subcontracts, as may be imposed or ordered under EO 11246, as amended, and its implementing regulations, by the OFCCP. Any failure to carry out these sanctions and penalties as ordered will be a violation of this clause and EO 11246.

m. The supplier in fulfilling its obligations under this clause must implement affirmative action procedures at least as extensive as those prescribed in paragraph g. above, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the supplier fails to comply with the requirements of EO 11246, the implementing regulations, or this clause, the contracting officer will take action as prescribed in 41 CFR 60-4.8.

n. The supplier must designate a responsible official to:

(1) Monitor all employment-related activity to ensure that the supplier's equal employment policy is being carried out;

(2) Submit reports as may be required; and

(3) Keep records that at least include for each employee the name, address, telephone number, construction trade, union affiliation (if any), employee identification number, social security number, race, sex, status (mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records must be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, separate records are not required to be maintained.

o. Nothing contained in this clause may be construed as a limitation upon the application of other laws that establish different standards of compliance or upon the requirements for the hiring of local or other area residents (for example, those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

SUPPLIER RELATIONS

CLAUSE 3-1: Small-, Minority-, and Woman-owned Business Subcontracting Requirements (February 2018)

a. All suppliers, except small businesses, must have an approved subcontracting plan for contracts estimated or valued at \$1 million or more at time of award. A subcontracting plan is also required when contracts awarded at less than \$1 million reach or exceed the \$1 million threshold during contract performance. The plan must be specific to this contract, and separately address subcontracting with small-, minority-, and woman-owned businesses. A plan approved by the Postal Service must be included in and made a part of the contract. A subcontract is defined as any agreement (other than one involving an employer-employee relationship) entered into by a Postal Service supplier or subcontractor calling for goods or services required for performance of the contract or subcontract.

b. The supplier's subcontracting plan must include the following:

(1) Goals, in terms of percentages of the total amount of this contract that the supplier will endeavor to subcontract to small-, minority-, and woman-owned businesses. The supplier must include all subcontracts that contribute to contract performance, and may include a proportionate share of goods and services that are normally allocated as indirect costs.



(2) A statement of the:

(a) Total dollars planned to be subcontracted under this contract. For indefinite-delivery contracts, this amount would be based upon the minimum and maximum and stated as a total dollar range; and

(b) Total of that amount planned to be subcontracted to small-, minority-, and woman-owned businesses. For indefinite-delivery contracts, this amount would be based upon the minimum and maximum and stated as a total dollar range.

(3) A description of the principal types of goods and services to be subcontracted under this contract, identifying the types planned for subcontracting to small-, minority-, and woman-owned businesses.

(4) A description of the method used to develop the subcontracting goals for this contract.

(5) A description of the method used to identify potential sources for solicitation purposes and a description of efforts the supplier will make to ensure that small-, minority-, and woman-owned businesses have an equitable opportunity to compete for subcontracts.

(6) A statement as to whether the offer included indirect costs in establishing subcontracting goals for this contract and a description of the method used to determine the proportionate share of indirect costs to be incurred with small-, minority-, and woman-owned businesses.

(7) The name of the individual employed by the supplier who will administer the subcontracting program and a description of the individual's duties.

(8) Assurances that the supplier will require all subcontractors receiving subcontracts in excess of \$1 million to adopt a plan similar to the plan agreed to by the supplier.

(9) A description of the types of records the supplier will maintain to demonstrate compliance with the requirements and goals in the plan for this contract. The records must include at least the following:

(a) Source lists, guides, and other data identifying small-, minority-, and woman-owned businesses;

(b) Organizations contacted in an attempt to locate sources that are small-, minority-, and woman-owned businesses;

(c) Records on each subcontract solicitation resulting in an award of more than \$100,000, indicating whether small-, minority-, or woman-owned businesses were solicited and if not, why not; and

(d) Records to support subcontract award data, including the name, address, and business size of each subcontractor.

c. Reports. The supplier must provide reports on subcontracting activity under this contract on a semi-annual basis. Should a contract be awarded and completed within the semi-annual reporting period, a report of subcontracting activity is still required. The report must be one of the types described in Clause 3-2: Participation of Small-, Minority-, and Woman-Owned Businesses.

CLAUSE 3-2: Participation of Small-, Minority-, and Woman-owned Businesses (February 2018)

a. The policy of the Postal Service is to encourage the participation of small-, minority-, and woman-owned business in its purchases of goods and services to the maximum extent practicable consistent with efficient contract performance. The supplier agrees to follow the same policy in performing this contract, and also agrees that any awarded subcontract will follow the same policy by including this clause within contracts with subcontractors.

b. When a contract is estimated or valued at \$500,000 or more, or when a contract reaches or exceeds the \$500,000 threshold during contract performance, the supplier must submit semi-annual reports on its subcontracting activity under this contract via a reporting method as specified by the Postal Service. Subject to the agreement of the supplier and the Postal Service, the supplier will report subcontracting activity on one of the following bases:

(1) Showing the amount of payments made to subcontractors during the reporting period;

(2) Showing subcontracting activity that is allocable to this contract using generally accepted accounting principles; or

(3) A combination of the methods listed above.

c. The supplier will submit a report in accordance with the Postal Service's reporting method to the contracting officer within 15 calendar days after the end of each semi-annual period, describing all subcontract awards to small-, minority-, or woman-owned businesses. The report will include, but is not limited to, Postal Service contract number, subcontractor information (supplier name, address, contact name, contact email address), business classification, North American Industry Classification System (NAICS) code, and contract specific payments (direct, allocated, and total direct and allocated dollars). The contracting officer may require more frequent reports.

B-CLAUSE B-35: Specifications and Drawings (March 2006)

a. The supplier must keep at the site, copies of the drawings and specifications and must at all times give the contracting officer access to them. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, is of like effect as if shown or mentioned in both. In case of discrepancy or conflicts between drawings and specifications, the specifications will govern.

b. In case of difference between small and large-scale drawings, the large-scale drawings will govern. Schedules on any contract drawing will take precedence over conflicting information on that or any other contract drawing. On any of the drawings in which a portion of the work is detailed or drawn out and the remainder is shown in outline, the parts detailed or drawn out will apply also to all other like portions of the work.

c. When the word "similar" appears on the drawings, it has a general meaning and must not be interpreted as meaning identical, and all details must be worked out in relation to their location and connection with other parts of the work.

d. In case of discrepancy either in figures, drawings, or specifications, the matter must be promptly submitted to the contracting officer, who will promptly make determination in writing. Any adjustment by the supplier without such a determination will be at the supplier's own risk and expense. The contracting officer must furnish from time to time such detailed drawings and other information as may be necessary.

e. The supplier must verify all dimensions shown of existing work, and all dimensions required for work that is to connect with work now in place, by actual measurement of the existing work. Any discrepancies between the contract requirements and the existing conditions must be referred to the contracting officer before the supplier performs any work affected by these discrepancies.

Attachments

- 01 General Requirements - Division 1-33
- 02 Drawings List/Drawings
- 03 Performance Bond (Form)
- 04 Payment Bond (Form)
- 05 DOL Wage Rates (Davis Bacon) (CT20220021 Hartford 02/04/2022)
- 06 DOL Wage Rate Report (Form)
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- 11 Management Plan
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- 13 List of Prequalified Contractors (Not Applicable)
- 14 Functional Design Specification (SOW)
- 15 Subsurface Investigation Report (Not Applicable)
- 16 Environmental Reports (Not Applicable)
- 17 Safety & Health Guide For Contractors (Occupied Buildings)
- 18 Certificate - Asbestos/Lead Paint
- 19 Basic Security Clearance Requirements (Form)
- 20 Provisions

GENERAL REQUIREMENTS - DIVISION 1-33

Attachment 01



Switchgear Replacement

Hartford, CT - P&DC

USPS Project No. B43529

A/E Project No. 18034.00

prepared by

McKinnell McKinnell & Taylor Inc.

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Rockland, MA 02370

September 15, 2021

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END OF DOCUMENT

USPS MPF Specifications issued: 10/1/2020
Last revised: 6/17/2013

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SEALS PAGE

PROJECT

Name: Switchgear Replacement
Location: Hartford, CT - P&DC
FMS Project Number: B43529

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9/15/21

Architect of Record

Date

STRUCTURAL ENGINEER OF RECORD

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Lynn, MA 01901



9/15/21

Structural Engineer of Record

Date

Switchgear Replacement
Hartford, CT - P&DC
B43529/18034.00

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9/15/21

Mechanical Engineer of Record

Date

ELECTRICAL ENGINEER OF RECORD

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9/15/21

Electrical Engineer of Record

Date

END OF DOCUMENT

USPS MPF Specifications issued: 10/1/2020
Last revised 6/17/2013

Switchgear Replacement
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USPS SPECIFICATION

Date: 10/1/2020

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Section	250504	Building Automation System (Bas) General	1-16
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DIVISION 26 – ELECTRICAL

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NOT USED

DIVISION 28 – ELECTRONIC SAFETY AND SECURITY

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DIVISION 31 – EARTHWORK

NOT USED

DIVISION 32 – EXTERIOR IMPROVEMENTS

NOT USED

DIVISION 33 – UTILITIES

NOT USED

END OF DOCUMENT

USPS CSF Specifications issued: 10/01/2020
Last revised: 08/07/2020

SECTION 011000
SUMMARY OF WORK

PART 1 - GENERAL

1.1 SCOPE

- A. The Contractor must provide all material, labor, tools, plant, supplies, equipment, transportation, superintendence, temporary construction of every nature, and all other services and facilities necessary to complete the construction of a postal facility for the Postal Service, including all incidental work described in the contract documents.
- B. The scope of work includes but is not limited to:
 - 1. Provide new roof-mounted, pre-assembled E-house complete with switchboards, transformer, panelboard, lighting, wiring devices, and HVAC.
 - 2. Provide new power distribution to connect to existing panels, transformers, motor control centers, etc.
 - 3. Disconnect and remove existing switchboards and modify associated feeders.
 - 4. Provide new lighting and fire alarm devices where indicated.
 - 5. Replace roof membrane below new steel frame.
 - 6. New steel frame to support new electrical equipment.
 - 7. Exterior wall work related to electrical penetrations.
- C. All work shall be in accordance with applicable codes and local regulations that may apply. In case of conflict in or between the Contract Documents and a governing code or ordinance, the more stringent standard shall apply.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

NOT USED

END OF SECTION

USPS Specification issued: 10/1/2020
Last revised: 6/17/2019

SECTION 011104

CONTRACT DOCUMENTS

PART 1 – GENERAL

1.1 SUMMARY

- A. The contract documents consist of the items included, or attached and incorporated by reference, in Section B, The Contract, B. 1500, *Attachments*.

1.2 DRAWING LIST

A.	Drawing number	Date	Title
	T1.01	9/15/21	Title Sheet
	A1.01	9/15/21	Roof and Structural Plan
	A4.01	9/15/21	Platform Sections
	A7.01	9/15/21	Details
	S1.01	9/15/21	Dunnage platforms & New Openings in Existing Roof Framing Plans & Structural General Notes
	S1.02	9/15/21	Sections, Plan Details & Typical Detail
	M1.01	9/15/21	Partial Roof Plan
	E0.01	9/15/21	Electrical Abbreviations, Legends, And Notes
	E3.01	9/15/21	First Floor Plan - Area A
	E3.02	9/15/21	First Floor Plan - Area B
	E3.03	9/15/21	First Floor Plan - Area C
	E3.04	9/15/21	First Floor Plan - Area D
	E6.01	9/15/21	Mechanical/Electrical Room Power & Lighting Plan - Removal
	E6.02	9/15/21	Mechanical/Electrical Room Power Plan - New Work
	E6.03	9/15/21	Mechanical/Electrical Room Lighting Plan - New Work
	E6.04	9/15/21	Electrical Part Plans
	E7.01	9/15/21	Partial One Line Diagram - Removal
	E7.02	9/15/21	Partial One Line Diagram - Removal
	E7.03	9/15/21	Partial One Line Diagram - New Work
	E7.04	9/15/21	Partial One Line Diagram - New Work
	E8.01	9/15/21	Schedules & Diagrams
	E9.01	9/15/21	Details
	E9.02	9/15/21	Details

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

NOT USED

END OF SECTION

USPS Specification issued: 10/1/2020
Last revised: 9/23/2015

Switchgear Replacement
Hartford, CT - P&DC
B43529/18034.00

011104 - 1

SECTION 013200

CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 – GENERAL

1.1 SCHEDULING WORK

- A. Before any of the work is started, the Contractor must confer with the COR and agree on a sequence of procedures: means of access to premises and building; delivery of materials and use of approaches; use of corridors, stairways, elevators, and similar means of communication; and the location of partitions, eating spaces for Contractor's employees, and the like.
- B. No work can be done during the holiday mailing season between November 15 and January 5 without written permission from the COR.

1.2 CONSTRUCTION PROGRESS CHART

- A. In accordance with the terms and conditions of the contract provisions and clauses, including those concerning *Construction Progress Chart*, prepare and submit a progress chart within five (5) days after receipt of the Notice to Proceed to show the principal categories of work corresponding with those used in the Schedule of Values:
 - 1. The order in which the Contractor proposes to carry on the work.
 - 2. The date on which it will start each category of work.
 - 3. The contemplated dates for completion.
- B. The chart must be in suitable scale to indicate graphically the total percentage of work scheduled to be in place at any time. At intervals as directed by the COR the Contractor must:
 - 1. Adjust the chart to reflect any changes in the contract work.
 - 2. Enter on the chart the total percentage of work actually in place.
 - 3. Submit six (6) copies of the chart to the Contracting Officer or their designated representative.

1.3 CONTRACTOR-PREPARED NETWORK ANALYSIS SYSTEM

NOT USED

1.4 PRE-CONSTRUCTION MEETING

- A. The Contracting Officer will schedule a pre-construction meeting before any work takes place. The Contractor's Project Manager, superintendent, and a representative of all major subcontractors shall attend this meeting. Additional persons may be required to attend the preconstruction meeting if directed by the Contracting Officer. At this time, the Contractor shall make pre-construction submissions including following:
 - 1. A typed list of the Contractors, Project Manager, Project Superintendent, and subcontractors (listed by trade) with a telephone number where they can be reached 24 hours/day, 7 days/week.
 - 2. Draft Schedule of Values.
 - 3. Draft Progress Schedule.

1.5 PROGRESS MEETINGS

- A. The contractor shall attend progress meetings at weekly intervals. Dates of meetings will be coordinated with preparation of payment requests.
1. Attendees: In addition to representatives of Owner and Architect, the Contractor's project manager and superintendent, each subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities with Project and authorized to conclude matters relating to the work.
 2. Agenda: Be prepared to discuss the following:
 - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's Construction Schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so.
 - b. Review phasing procedures to ensure impact to owner is minimized.
 - c. Review present and future needs of each entity present, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Status of submittals.
 - 4) Deliveries.
 - 5) Off-site fabrication.
 - 6) Access.
 - 7) Site utilization.
 - 8) Temporary facilities and controls.
 - 9) Work hours.
 - 10) Hazards and risks.
 - 11) Progress cleaning.
 - 12) Quality and work standards
 - 13) Changes orders.
 - 14) Documentation of information for payment requests.
 3. Minutes: The Architect will record the minutes and distribute them to the owner and the Contractor. The Contractor shall distribute the Architect's minutes to affected subcontractors and suppliers.
 4. Schedule Updating: Revise Contractor's Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule prior to following meeting.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

NOT USED

END OF SECTION

USPS Specification issued: 10/1/2020
Last revised: 10/1/2015

SECTION 013300

SUBMITTAL PROCEDURES

PART 1 – GENERAL

1.1 SCHEDULE OF SUBMITTALS

- A. In accordance with the terms and conditions of the contract provisions and clauses, including those concerning Shop Drawings, Coordination Drawings, *Record "As Built" Drawings, and Schedules*; within 30 days after receiving a Notice to Proceed, the Contractor must complete the Schedule of Submittals, in the format indicated below, in duplicate, listing all items that must be furnished for review and approval by the Postal Service. The schedule must indicate the type of items (such as sample, shop drawings, catalog cut, and so forth) and include the scheduled dates of submittal. In preparing the schedule, adequate time (10 business days or more, exclusive of time in the mails) must be allowed for review and approval and possible resubmittal. Also, the schedule must be coordinated with the approved construction progress chart. The Contractor must revise and/or update the schedule as directed. Such revised schedules must be made available to the COR for monitoring.
- B. Within 30 days after receiving a Notice to Proceed, the Contractor must complete and submit to the COR a listing of all subcontractors, including subcontractor name, address, telephone number, fax number and email address. Include an updated list with each progress payment request.
- C. Schedule of Submittals Format

Project _____

Contract No. _____

Project Description _____

Spec. Section	Spec. Description	Paragraph Number	*Submittal Type	Date		Action Taken	Assigned Number
				Submittal	Returned		

*Submittal Type:

C – Certificate

S – Sample

SD – Shop Drawing

CD – Catalog Data

PL – Spare Parts List

MM – Maintenance Manual

1.2 SHOP DRAWINGS AND RELATED DATA

- A. Submittal of shop drawings, samples and related data must conform to the requirements of the terms and conditions of the contract provisions and clauses, including those concerning, *Record "As Built" Drawings, and Samples*. Prior to submittal, the Contractor must stamp the submittal to indicate that it has been reviewed and approved. The Contractor must make any corrections required by the COR. If the Contractor considers any correction indicated on the drawings to constitute a change to the contract

drawings or specifications, notice, as required under the terms and conditions of the contract provisions and clauses, including those concerning Changes must be given to the COR. Four (4) prints of all approved shop drawings must be given to the COR. The approval of the drawings by the COR must not be construed as a complete check but indicates only that the general method of construction and detailing is satisfactory. Approval of the shop drawings does not relieve the Contractor of responsibility for any error that may exist because the Contractor is responsible for the dimensions and design of adequate connections and details and for satisfactory construction of all work. The submission by the Contractor must be accompanied by a transmittal letter of a type approved by the COR.

1. Each shop drawing must have a blank area of 5 by 5 inches, located adjacent to the title block. The title block must display:
 - a. Number and title of drawing;
 - b. Date of drawing or revision;
 - c. Name of project building or facility;
 - d. Name of Contractor and (if appropriate) of subcontractor submitting drawing;
 - e. Clear identity of contents and location on the work; and
 - f. Project title and contract number.
2. All drawings to be provided shall be clear and fully representative of the facility and fixed mechanization work.
3. Drawing files to be in .dwg and .pdf formats. .dwg files to be generated from Autocad revision 12 or other revision level concurred by USPS.
4. Documents other than drawings shall be provided in MicroSoft Word format.
5. Interim project documentation may be provide to USPS electronically
6. All final project documentation shall be provided to the USPS on a single CD or DVD media

1.3 EQUIPMENT ROOM LAYOUT DRAWINGS

- A. The Contractor must prepare and submit equipment room layout drawings as required by the technical provisions as well as for areas where equipment proposed for use could present interface or space difficulties. Room layout drawings must be submitted within 40 days after receiving a Notice to Proceed and must conform to the specified requirements for shop drawings. Submittals describing the various mechanical and electrical equipment items that are to be installed in the areas represented by the layout drawings must be assembled and submitted concurrently and must be accompanied by the room layout drawings. Room layout drawings must be consolidated for all trades, to scale, and must show all pertinent structural and fenestration features and other items, such as cabinets, that are required for installation and that affect the available space. All mechanical and electrical equipment and accessories must be shown to scale in the plan and also in elevation or section in their installation positions. Ductwork and piping must be shown.

1.4 MATERIAL, EQUIPMENT, AND FIXTURE LISTS

- A. When required by the technical provisions, lists of materials, equipment, and fixtures must be submitted by the Contractor in accordance with the requirements specified for shop drawings. The lists must be supported by sufficient descriptive material, such as catalogs, cuts, diagrams, and other data published by the manufacturer, as well as by evidence of compliance with safety and performance standards, to demonstrate conformance to the specification requirements. Catalog numbers alone are not acceptable. The data must include the name and address of the nearest service and maintenance organization that regularly stocks repair parts. No consideration will be given to partial lists submitted from time to time. Approval of materials and equipment is tentative, subject to submission of complete shop drawings indicating compliance with the contract documents.

1.5 CERTIFICATES OF COMPLIANCE

- A. Any certificates required for demonstrating proof of compliance of materials with specification requirements, including mail certificates, statements of application, and extended guarantees, must be signed and submitted 4 copies to the COR at least 10 days before delivery. The Contractor must review all certificates before submissions are made to the COR, to ensure compliance with the contract specification requirements and to ensure that the affidavit is properly signed. Each certificate must be signed by an official authorized to certify on behalf of the manufacturing company and must contain the name and address of the Contractor, the project name and location, and the quantity and date or dates of shipment or delivery to which the certificates apply. Copies of laboratory test reports submitted with certificates must contain the name and address of the testing laboratory and the dates of tests to which the report applies. Certification must not be construed as relieving the Contractor from furnishing satisfactory material if, after tests are performed on selected samples, the material is found not to meet the specific requirements.

1.6 A-E'S REVIEW OF SUBMITTALS

- A. When submittals are reviewed by the A-E on behalf of the COR, each submittal must be returned to the Contractor stamped or marked by the A-E in one of the following ways:
 - 1. A Action: The Contractor is advised that "A Action" means that fabrication, manufacture, or construction may proceed, provided the work complies with the contract documents.
 - 2. B Action: The Contractor is advised that "B Action" means that fabrication, manufacture, or construction may proceed, provided the work complies with the A-E's notations and the contract documents.
 - 3. C Action: The Contractor is advised that "C Action" means that no work may be fabricated, manufactured, or constructed and that the Contractor must make a new submittal to the A-E. Any submission marked "C Action" is not permitted on the site.
- B. The A-E must return reproducibles stamped "A Action" or "B Action" to the Contractor, who is responsible for obtaining prints of them and for distributing them to the field and to subcontractors.
- C. In the case of shop drawings in the form of manufacturers' descriptive literature, catalog cuts, and brochures stamped "A Action" or "B Action," the A-E must return the stamped copies to the Contractor, who is responsible for distributing them to the field and to the subcontractors. If the shop drawings are stamped "C Action," the A-E will return stamped copies to the Contractor, who must submit new shop drawings to the A-E.
- D. In the case of samples stamped "A Action" or "B Action," the A-E must return one of the samples to the Contractor. In the case of samples stamped "C Action," the A-E must return all of the submitted samples.

1.7 SPARE PARTS DATA

- A. Spare parts data must be submitted in quadruplicate in accordance with the terms and conditions of the contract provisions and clauses, including those concerning *Spare Parts Data*.

1.8 SCHEDULE OF VALUES

- A. In accordance with the terms and conditions of the contract provisions and clauses concerning, *Construction Cost Breakdown*, the Contractor must submit a construction cost breakdown using the attached Schedule of Values. When applicable, a separate cost breakdown form must be submitted for each separate building. However, the total cost of site work for the facility must be included in the cost

estimate breakdown for the main postal building. The number of items provided on the Systems Construction Cost Estimate Breakdown form are the minimum required. Additional subdivision of these items may be used by the Contractor.

- B. Submit the construction cost breakdown after contract award to the COR. A Sample Schedule of Values and Definitions is attached to this Section, as Attachment A.
- C. Do not delete items from the Schedule of Values form. However, expand the schedule "Description of Work" as necessary to allow evaluation of work or to make partial payments.
- D. If the contract price changes, the Schedule of Values must be revised to reflect the change(s) and forwarded to the COR.
- E. A current Schedule of Values must accompany all Contractor Requests for Payment.

1.9 FIXED MECHANIZATION CONSTRUCTION COST ESTIMATE BREAKDOWN SUMMARY

- A. In accordance with the terms and conditions of the contract provisions and clauses concerning, *Construction Cost Breakdown*, the Contractor must submit a construction cost estimate using the Fixed Mechanization Construction Cost Estimate Breakdown Summary indicated below. When applicable, a separate cost estimate breakdown form must be submitted for each separate building. The number of items provided on the form are the minimum required. Additional subdivision of these items may be used by the Contractor.
- B. Submit the Fixed Mechanization Construction Cost Estimate Breakdown Summary after contract award to the COR.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

NOT USED

END OF SECTION

USPS Specification issued: 10/1/2020
Last revised: 10/1/2015

Schedule of Values

Facility: Hartford, CT - P&DC/Switchgear Replacement
 FSM Project Number: B43529
 Contractor:
 Date:

Item	Description of Work	Material	Labor	Total
Division 01	General Conditions			
1.1	Overhead			\$ -
1.2	Profit			\$ -
1.3	Bldg. Permits			\$ -
1.4	Testing			\$ -
1.5	Other			\$ -
Division 02	Existing Conditions			
2.1	Demolition			\$ -
Division 03	Concrete			
	Not Used			
Division 04	Masonry			
	Not Used			
Division 05	Metals			
5.1	Structural Steel			\$ -
5.2	Misc. Metals			\$ -
5.3	Other			\$ -
Division 06	Wood, Plastics and Composites			
6.1	Carpentry			\$ -
6.2	Other			\$ -
Division 07	Thermal & Moisture Protection			
7.1	Roofing System			\$ -
7.2	Sidewall			\$ -
7.3	Shaft enclosures			\$ -
Division 08	Openings			
	Not Used			
Division 09	Finishes			
9.1	Painting			\$ -
Division 10	Specialties			
	Not Used			
Division 11	Equipment			
	Not Used			
Division 12	Furnishings			
	Not Used			
Division 13	Special Construction			
13.1	Fabricated Electrical House			\$ -
Division 21	Fire Suppression			
	Not Used			
Division 22	Plumbing			
	Not Used			
Division 23	Heating Ventilating and Air Conditioning			
23.1	Ductwork			\$ -
Division 25	Integrated Automation			
25.1	Building Automation System			\$ -
Division 26	Electrical			
26.1	Electrical Power			\$ -
26.2	Electrical Lighting			\$ -
26.3	Structured Wiring			\$ -
Division 27	Communications			
	Not Used			
Division 28	Electronic Safety and Security			
28.1	Fire Alarm System			\$ -
Division 31	Earthwork			
	Not Used			
Division 32	Exterior Improvements			
	Not Used			
	Total	\$ -	\$ -	\$ -

SECTION 013543

ENVIRONMENTAL PROCEDURES

PART 1 – GENERAL

1.1 SCOPE

- A. This section is required in accordance with the terms and conditions of the contract provisions and clauses, including those concerning Safety & Health Standards, Accident Prevention, Protection of the Environment, Existing Vegetation, Structures, Utilities and Improvements, and Handling Asbestos and other Hazardous Materials. The work covered by this section consists of furnishing all labor, material, and equipment and performing all work required for compliance with environmental regulations and preventing pollution during, and as a result of, construction operations under this contract, in addition to those measures set forth in other technical provisions of these specifications.
- B. The Contractor and subcontractors must comply with all applicable federal, state and local laws and regulations related to the environment, health and safety.

1.2 NOTIFICATION

- A. The Contractor must, after receiving a notice of noncompliance with the foregoing provisions, immediately take corrective action. The notice, when delivered to its Contractor or its authorized representative at the site of the work, is deemed sufficient for this purpose. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost because of any such stop orders may be made the subject of a claim for extension of time or for excess costs or damages by the Contractor unless it is subsequently determined that the Contractor was in compliance and the Contractor demonstrates that it is otherwise entitled to an extension of time, excess costs or damages, under the applicable terms and conditions of the contract provisions and clauses.

1.3 ENVIRONMENTAL REGULATORY COMPLIANCE

- A. Within 30 days after receiving the notice to proceed or not less than 15 days prior to commencing on-site work, the Contractor must submit any environmental documents that are required by federal, state or local environmental regulations. Plans must be approved by the COR prior to commencing on-site work and must describe and include, but is not limited to, the following
 1. Erosion Control and Stormwater Management Plan that describes erosion control methods, surface drainage, storm water permitting requirements, and if applicable, protection of site wetlands and/or compliance with wetland permits. This must ensure any federal, state or local permitting requirements for site preparation, erosion control or surface drainage are met.
 2. Landscape Management and Protection Plan that ensures any site-specific beneficial landscaping requirements are met. The plan shall describe the prevention and restoration of landscape damage, temporary roads and embankments, and post construction cleanup as prescribed in the terms and conditions of the contract provisions and clauses, including those concerning *Protection of the Environment, Existing Vegetation, Structures, Utilities and Improvements*.
 3. Waste Minimization and Management Plan must describe how natural resources potentially impacted by construction will be protected or managed; construction wastes

will be stored and disposed of or recycled; and pollutants associated with building materials will be controlled. The waste minimization and management section of the plan must also list materials and construction debris to be recycled, and address the disposal of solid and hazardous wastes and materials, including asbestos and lead-based paint. It must also include tables applicable to the reclamation of chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) in accordance with 1.4 (B) below.

1.4 ENVIRONMENTAL SITE CONTROLS

- A. Location of Hazardous Materials: The location of the Contractor's temporary storage of any hazardous materials and/or wastes must be appropriately marked and included in the health and Safety Plan (see Section 1.5 below).
- B. Refrigerant Recovery, Recycling, and Disposal: Any work involving the replacement or repair of equipment containing refrigerant shall meet the following requirements:
 - 1. Recover and recycle or dispose of refrigerant from equipment according to 40 CFR 82 and local regulations.
 - 2. The work shall be completed by a certified refrigerant recovery technician, per 40 CFR 82 and local regulations.
 - 3. Provide a statement signed by the certified refrigerant recovery technician that the work was completed per 40 CFR 82 and local regulations. Include the name and address of technician and date refrigerant was recovered.
- C. Post-construction Cleanup or Obliteration: The Contractor must remove and properly dispose of all signs of temporary construction facilities such as haul roads, work area, structures, foundations of temporary structures, excess or waste materials, or any other vestiges of construction as directed by the COR. No separate or direct payment may be made for post-construction cleanup and all associated costs must be considered included in the contract price.
- D. Historical and Archeological: Monuments, markers, and works of art must be protected. Items discovered that have potential historical or archeological interest must be preserved. The Contractor must leave the archeological find undisturbed and must immediately report the find to the COR so that the proper authority may be notified.
- E. Dust Control: The Contractor must keep the site free from dust in accordance with applicable federal, state and/or local regulations.
- F. Noise Minimization: The Contractor must perform demolition and construction operations to minimize noise including conducting work during less sensitive hours of the day in accordance with applicable noise control regulations.

1.5 HEALTH AND SAFETY

- A. Prior to commencing on-site work, the Contractor must submit an Occupational Safety and Health Administration (OSHA) Emergency Action Plan (EAP) to the Contracting Officer to demonstrate compliance by the Contractor and subcontractors with applicable OSHA regulations. If the Contractor is not required by OSHA to develop a written EAP, i.e. if 10 or fewer are employed for the construction project or any other specific regulations identified by OSHA, then the Contractor shall submit to the Contracting Officer a signed letter stating the Contractor shall meet OSHA's EAP requirements in a verbal communication to all employees.
- B. The Postal Service has provided a *Safety and Health Guide for Contractors*, as Attachment A to this section. Prior to commencing on-site work, Contractor must read the *Safety and Health*

Guide for Contractors and must sign the attached Certificate of Understanding acknowledging and accepting the requirements stated therein.

- C. Prior to commencing on-site work, the Contractor must submit a project-specific Project Safety Plan to the Contracting Officer. The plan must include, but is not limited to, hazard communication, labeling, emergency response and preparedness and training.
- D. Copies of Material Safety Data Sheets (MSDSs) for any hazardous material(s), as defined by OSHA's Hazard Communications Standard, must be included whenever such materials arrive on-site. MSDSs must be kept together and maintained centrally on-site through to project completion. Provide a copy of each MSDS in the Operating and Maintenance Manual. The use of asbestos containing materials, in excess of one percent as defined by US Environmental Protection Agency regulations, is prohibited in the construction of this project. Provide an executed copy of the "Certificate of Asbestos and Lead-Based Paint (New Work)" in the Operating and Maintenance Manual and include a copy with the final payment request.
- E. The use of lead-based paint is prohibited in the construction of this project.
- F. The use of lead-containing solder for plumbing and plumbing fixtures is prohibited in the construction of this project.
- G. In accordance with the terms and conditions of the contract provisions and clauses, including those concerning *Asbestos Free and Lead-Based Paint Free Certification*, the Contractor must sign and submit to the Contracting Officer the attached "Certification of Asbestos and Lead-Based Paint" for this project. The signed certificate is required to be included in the final payment request.
- H. Do not use any of the USPS targeted chemicals (see regulated and prohibited materials identified under Safety and Health and related environmental requirements).

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION

USPS Specification issued: 10/1/2020
Last revised: 9/17/2015

Safety and Health Guide for Contractors

Certificate of Understanding

This *Safety and Health Guide for Contractors* was developed by the Postal Service to provide guidance for contractors hired to perform repair, alteration, renovation, demolition, equipment installation, and other work requiring access to postal-owned or -leased property.

Distribution

A copy of this Certificate of Understanding should be signed by the Contractor's representative at the post award orientation conference or before the commencement of work. A copy of this guide should be readily accessible where the work is being performed. The contracting officer's representative (COR) should thoroughly brief the Contractor's representative on the Contract Safety and Health Requirements contained herein.

Contractor's Verification Statement

As a representative of _____ (Contractor's name), I have received the *Safety and Health Guide for Contractors* prepared by the Postal Service. As the Contractor's representative, I understand and accept the requirements contained herein, and I have reviewed each of the required sections of the guide with the COR and/or the designated Postal Service representative. I agree to review the contents of this guide with all subcontractors hired to perform work on postal property.

Contractor's Representative

Printed Name: _____ Contact Number: _____

Signature: _____ Date: _____

Designated Postal Service Representative

Printed Name: _____ Contact Number: _____

Signature: _____ Date: _____

Safety Representative (If Required by COR)

Printed Name: _____ Contact Number: _____

Signature: _____ Date: _____

Postal Service CO, COR, or Project Manager

Printed Name: _____ Contact Number: _____

Signature: _____ Date: _____

Maintain a copy of this signed form in the Postal Service and Contractor's project files.

013543 Attachment A

Safety and Health and Related Environmental Requirements

The Contractor is required to meet all applicable OSHA, federal, state, and local safety, health, and related environmental requirements in addition to the US Postal Service requirement listed in this table.

Issue	Postal Requirements
Asbestos	<i>Review of Facility Asbestos Survey:</i> Before any building maintenance, equipment installation, renovation, alteration, demolition, or other project begins, determine whether ACBM will be disturbed. <i>Proper Work Practices:</i> If ACBM is present, follow proper control procedures and work practices. <i>Consultation With Facility Asbestos Coordinator:</i> Consult with the facility manager or his or her designee before the start of any work likely to disturb ACBM. Disturbance means activities that crumble or pulverize ACBM or presumed asbestos-containing material (PACM) or generate visible debris. Operations may include drilling, abrading, cutting a hole, pulling cable, and crawling through tunnels or attics and spaces above the ceiling where asbestos is actively disturbed or asbestos-containing debris is actively disturbed. <i>Asbestos Work Authorization:</i> You must have an approved Form 8210, <i>Work Authorization - Asbestos</i>, before work begins within any building containing asbestos.
Barricades, Barriers, and Warnings	Your barricades must meet the OSHA requirements. In addition, you assume control of your work area during your activities unless otherwise specified in writing by the contracting officer (CO) or contracting officer's representative (COR).
Confined Spaces	Confined space work must meet the OSHA requirements. You must have a comprehensive confined space program that includes a written program, employee training, entry and testing equipment, and rescue capabilities. If you require access to confined space requiring a permit, then the trained, designated Postal Service representative must review and approve the project and permit. Entry into other confined spaces must be in accordance with OSHA regulations.
Electrical Work	Lock or rope off work areas involving exposed energized equipment or have an attendant present to prevent accidental contact by unqualified people. Refer to the Barricade section of this guideline for additional information.
Elevated Work and Fall Protection	Follow strictly the applicable OSHA fall protection requirements.
Excavation	All excavations 4 feet or more in depth must be properly shored or sloped and meet all OSHA requirements. Before any digging or drilling commences, inform the Postal Service COR and call Dig Safe or its local equivalent to determine whether any underground utilities are located in the work area. Submit documentation that these notifications have been performed. You must not begin digging or drilling until you have verified that underground utilities have been identified and are properly marked so that work may be accomplished in a safe manner.
Fire Protection	Do not block, remove, or otherwise prevent Postal Service fire extinguishers from being immediately accessible and usable. If a system must be impaired by a scheduled shutdown, notify the appropriate Postal Service representative and do not proceed without Postal Service authorization.
Hazard Communication	Inform the Postal Service before any chemicals are used. Before materials are brought on site, provide material safety data sheets (MSDSs) and an inventory of materials. For projects that are anticipated to use substantial quantities of hazardous materials, you may be required to provide a routing, storage, and waste disposal plan. Upon request, the Postal Service will make available to you MSDSs for hazardous materials the Postal Service uses in the Contractor work area.
Hazardous Materials	Follow all OSHA requirements regarding hazardous materials. Hazardous materials include, but are not limited to, flammable and combustible liquids, gasoline, diesel fuel, motor oil, lubricating oil, hydraulic oil, corrosive cleaners, and battery acid. Provide secondary containment for all containers of liquids that are over 5 gallons in capacity. Immediately report all hazardous material releases ("spills"), regardless of how small or where they occur, to the designated Postal Service representative. Releases include solids, liquids, and gases.
Hot Work	Do not begin any hot work until a Postal Service qualified person has completed and signed a Postal Service Hot Work Permit. The permit will be valid for only a single work shift. You must display the permit at the work site.

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	You are prohibited from performing hot work (a) when the Postal Service has not authorized it, (b) in locations in which fire protection systems have been impaired, (c) in the presence of explosive or flammable atmospheres, or (d) in locations where large quantities of flammable and combustible materials are unprotected.
Powered Industrial Trucks	Powered industrial trucks and other mobile equipment must follow all traffic rules of the postal facility. The maximum speed limit for in-plant powered vehicles is 5 miles per hour. Many work areas have posted speed limits that you must strictly follow. Perform refueling only in authorized locations following safe procedures. As a general rule, the Postal Service does not allow gas- or diesel-powered industrial equipment inside postal facilities. Coordinate exceptions to the rule through the servicing safety office.
Ladders	Strictly follow all OSHA requirements regarding ladders. Barricade the ladder use area to prevent contact with mobile equipment and employees.
Lead-Based Paint	<i>Review of Facility Lead Survey:</i> Before any construction, alterations, and/or repair activities begin, determine whether LBP will be disturbed. If the painted surface has not been tested, you must have it tested before beginning any activities that could potentially disturb LBP. <i>Proper Work Practices:</i> If LBP is present, follow proper control procedures and work practices. <i>Consultation With Facility Manager:</i> Consult with the facility manager or his or her designee before the start of any work likely to disturb LBP. Examples of activities that may affect LBP include paint removal by scraping, sanding, power tools, or heat guns; alterations that include removing drywall, structural steel, or other building materials coated with LBP; welding, cutting, or other hot work on coated metal surfaces; abrasive blasting of mail boxes and other equipment; and moving or cleaning of abrasive blasting enclosures.
Lockout/Tagout	Provide a copy of your lockout/tagout procedures, which must meet or exceed the OSHA Lockout/Tagout standard. You will be given access to and must review the Postal Service lockout/tagout program. If you encounter a Postal Service lockout/tagout device that prevents the continuation of work, do not make any attempts to remove, tamper with, or bypass the devices. Contact a Postal Service Maintenance official and make arrangements to have the lockout device removed in accordance with Postal Service lockout removal policies.
Machinery and Equipment	Postal facilities use state-of-the-art mail handling machinery, some of which may operate automatically. Hazards may include, but are not limited to, moving parts and power transmission apparatus, pinch points, electrical contact, and hot surfaces. Do not use machine surfaces as work platforms. Contact the designated Postal Service representative concerning facility machinery.
Personal Protective Equipment	Before beginning work, evaluate the work area for hazards, determine whether contract employees will be required to use personal protective equipment (PPE) to protect themselves from these hazards, and document the hazard assessment. Wear the PPE required by the postal facility in which you are working, regardless of your perception of hazard potential.
Regulated And Prohibited Materials	<i>Pesticides.</i> The Postal Service has restricted the use of pesticides. Obtain prior approval of the district environmental compliance coordinator for special cases that may require the use of pesticide treatments. <i>Chemical Prohibition.</i> Adhere to the Postal Service Hazard Communication Program and chemical prohibition policies. Do not use on postal property any of the chemicals prohibited by EPA unless a Postal Service person authorizes its use (each of these chemicals must be authorized separately). The USPS Office of Sustainability can supply the list. <i>Asbestos-Free Products.</i> Install no asbestos-containing products or materials in postal facilities. <i>Lead.</i> Apply no lead-based paint in postal facilities.
Scaffolding	Follow strictly the applicable OSHA scaffolding requirements. Provide adequate barrier protection around the scaffolding to prevent hazards to postal workers.
Walking and Working Surfaces	If the project requires temporary modifications to the means of egress, inform the designated Postal Service representative before performing such actions, provide appropriate alternative means of egress, and communicate these to all employees.

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Emergency Procedures

Preparations for Emergency	Be prepared for emergency situations. Ensure that emergency telephone numbers are site specific, readily available, easily read, and communicated to all employees. Train and authorize employees to implement emergency procedures.
Medical Emergencies	Have procedures and medical supplies to provide emergency medical services for your own personnel. Determine how to contact emergency medical services before work begins, and have on-site capabilities to contact such services immediately.
Fires	See Fire Protection above. In the event of a fire, you must: - Immediately remove personnel from the area or building following Postal Service evacuation procedures. - Immediately contact the nearest postal employee and inform him or her of the fire. You may also activate an emergency alarm in the area. If no postal employees are on-site, immediately contact the local fire department. Personnel trained in the use and limitations of fire extinguishers may attempt to extinguish the fire if it is safe to do so.
Chemical Releases	See Hazardous Materials above. If the event of a hazardous material release, you must: - Immediately remove personnel from the area or building following Postal Service evacuation procedures. - Immediately contact the designated Postal Service representative and inform him or her of the release. You may also activate an emergency alarm in the area. If no postal employees are on-site, immediately contact the local fire department. Contractor personnel should not respond to the release unless specifically trained and protected to perform hazardous material response.
Power Outages	In the event of a power outage, you must: - Immediately stop work and assemble for a head count and possible facility egress. - Inform all contract employees that equipment may automatically restart when power resumes. - Immediately contact the designated Postal Service representative and inform him or her of the status of contract work and personnel head count. Relay at this time all hazards created due to the power outage. When power resumes evaluate the status of operations that were being performed relative to hazard potential. For example, the interruption of ventilation in confined spaces may generate atmospheric hazards.
Accident Investigation and Reporting	As soon as is practical after an accident, investigate and document an accident investigation. The documentation must describe the incident and identify the causes and the corrective actions that will prevent future incidents. Report all accidents, whether or not they result in injury. Give the written report to the Postal Service COR within 24 hours of the accident or incident.

013543 Attachment A

Certificate of Asbestos and Lead-Based Paint

(New Work)

To: Contracting Officer, United States Postal Service

Subject: Certification for new construction

Postal facility name: _____

Postal facility address: _____

Certification for new construction:

This Contractor/Owner hereby certifies that no asbestos-containing material in excess of 1 percent as defined by applicable US Environmental Protection Agency regulations, and no lead-based paint has been furnished or installed at the referenced project.

Contractor/Owner name: _____

Signature: _____

Address: _____

Telephone: _____ Date executed: _____

The penalty for making a false statement is prescribed by 18 USC 1001.

SECTION 014000

QUALITY REQUIREMENTS

PART 1 – GENERAL

1.1 CONTRACTOR QUALITY CONTROL

- A. Contractor Quality Control: The Contractor is responsible for the overall quality of all its own work and the work performed by their subcontractors working under this contract. The quality of any part of the work installed must not be less than that required by the technical divisions of this specification. If the COR determines that the quality of work does not conform to the applicable specifications and drawings, the Contractor will be advised in writing of the areas of nonconformance, and within 7 days the Contractor must correct the deficiencies and advise the COR in writing of the corrective action taken.
- B. Noncompliance with Quality Control Requirements: Failure of the Contractor to comply with the above requirements may be cause for termination for default as defined in the terms and conditions of the contract provisions and clauses, including those concerning, *Termination for Convenience or Default*, of the general contract clauses.

1.2 SUBMITTALS

- A. Prior to the start of on-site work, the Contractor must submit to the Contracting Officer a Contractor Quality Control Plan that includes the following information:
 - 1. Quality Control Organization: In chart form, showing relationship of Quality Control organization to other elements of Contractor's organization.
 - 2. Names and qualifications of personnel in Quality Control organization, including Contractor Quality Control Representative, inspectors, Independent Testing and Inspection Laboratory, and Independent HVAC Test and Balance Agency.
 - 3. Procedures for reviewing coordination drawings, shop drawings, certificates, certifications, or other submittals.
 - 4. Testing and inspection schedule, keyed to Construction Schedule, indicating tests and inspections to be performed, names of persons responsible for inspection and testing for each segment of work including preparatory, initial, and follow-up.
 - 5. Proposed forms to be used including Contractor's Daily Report, Contractor Test and Inspection Report and Non-Compliance Check-Off List.
- B. INDEPENDENT TESTING AND INSPECTION LABORATORY: Submit the following.
 - 1. Name.
 - 2. Address.
 - 3. Telephone number.
 - 4. Names of full time registered engineer.
 - 5. Responsible officer.
 - 6. Copy of report of laboratory facilities inspection made by Materials Reference Laboratory of National Bureau of Standards during most recent inspection, with memorandum of remedies of any deficiencies reported by inspection.

1.3 QUALITY CONTROL PROCEDURES

- A. Monitor quality control over Contractor staff, subcontractors, suppliers, manufacturers, products, services, site conditions, and workmanship.

- B. Comply fully with manufacturer's published instructions, including each step in sequence of installation.
- C. Should manufacturer's published instructions conflict with Contract Documents, request clarification from COR before proceeding.
- D. Comply with specified standards as a minimum quality for work, except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform work by persons who are thoroughly qualified and trained in their respective trade, to produce workmanship of specified quality.
- F. Perform tests required by governing authorities having jurisdiction and utilities having jurisdiction.

1.4 TESTING AND INSPECTION LABORATORY SERVICES

- A. Selection and Payment:
 - 1. The Contractor shall pay for services of an Independent Testing and Inspection Laboratory to perform specified testing and inspection.
 - 2. Employment of Independent Testing and Inspection Laboratory in no way relieves Contractor of obligation to perform work in accordance with requirements of Contract Documents.
- B. Quality Assurance:
 - 1. Comply with requirements of all applicable ASTM standards.
 - 2. Laboratory: Authorized to operate in State in which Project is located.
 - 3. Laboratory Staff: Maintain a full time registered engineer on staff to review services.
 - 4. Testing Equipment: Calibrated at reasonable intervals with devices of and accuracy traceable to either National Bureau of Standards or accepted values of natural physical constraints.
- C. Laboratory Responsibilities. Contractor shall ensure the Laboratory has the following responsibilities and limits on authority:
 - 1. Test samples of mixes submitted by Contractor.
 - 2. Provide qualified personnel at Project site. Cooperate with COR and Contractor in performance of services.
 - 3. Perform specified sampling, testing, and inspection of Products in accordance with specified standards.
 - 4. Determine compliance of materials and mixes with requirements of Contract Documents.
 - 5. Promptly notify Contractor Quality Control Representative and COR of observed irregularities or non-conformance of work or Products.
 - 6. Submit one copy of all test results directly to the COR.
 - 7. Perform additional tests as required by COR.
 - 8. Attend appropriate preconstruction meetings and progress meetings.
- D. Limits on Authority. Contractor shall ensure the Laboratory has the following limits on authority:
 - 1. Laboratory may not release, revoke, alter, or expand on requirements of Contract Documents.
 - 2. Laboratory may not approve or accept any portion of work.
 - 3. Laboratory may not assume any duties of Contractors.
 - 4. Laboratory has no authority to stop work.

1.5 CONTRACTOR FIELD INSPECTION AND TESTING

- A. Contractor: Test and Inspect work provided under this Contract to ensure work is in compliance with Contract requirements. Required tests and inspections are indicated in each individual Specification Section.
- B. Preparatory Inspection: Performed prior to beginning work and prior to beginning each segment of work and includes:
 - 1. Review of Contract requirements.
 - 2. Review of shop drawings and other submittal data after return and approval.
 - 3. Examination to assure materials and equipment conform to Contract requirements.
 - 4. Examination to assure required preliminary or preparatory work is complete.
- C. Initial Inspection: Performed when representative portion of each segment of work is completed and includes:
 - 1. Performance of required tests.
 - 2. Quality of workmanship.
 - 3. Review for omissions or dimensional errors.
 - 4. Examination of products used, connections and supports.
 - 5. Approval or rejection of inspected segment of work.
- D. Follow-Up Inspections: Performed daily, and more frequently as necessary, to assure non-complying work has been corrected.
- E. Testing and Inspection: Perform testing and inspection in accordance with requirements in individual Specification Sections.

1.6 CONTRACTOR'S DAILY REPORT

- A. In accordance with the terms and conditions of the contract provisions and clauses, including those concerning *Performance and Superintendence of Work by Contractor*, the Contractor shall submit daily report to COR, for days that work was performed. Include the following information:
 - 1. Date, weather, minimum and maximum temperatures, rainfall, and other pertinent weather occurrences.
 - 2. Daily workforce of Contractor and subcontractors, by trades.
 - 3. Description of work started, ongoing work, and work completed by each subcontractor.
 - 4. Coordination implemented between various trades.
 - 5. Approval of substrates received from various trades.
 - 6. Nonconforming and unsatisfactory items to be corrected.
 - 7. Remarks, to include at a minimum, any potential delays, schedule changes, workplace incidents or other items of note. However, nothing reported herein shall relieve the Contractor of the separate responsibility under other terms and conditions of the Contract provisions and clauses to provide specific notice to the Contracting Officer,

1.7 CONTRACTOR'S TEST AND INSPECTION REPORTS

- A. Prepare and submit, to COR, a written report of each test or inspection signed by Contractor Quality Control Representative performing inspection within 2 days following day inspection was made.

- B. Include the following on written reports of inspection:
1. Cover sheet prominently identifying that inspection "CONFORMS" or "DOES NOT CONFORM" to Contract Documents.
 2. Date of inspection and date of report.
 3. Project name, location, solicitation number, and Contractor.
 4. Names and titles of individuals making inspection, if not Contractor's Project Field Superintendent.
 5. Description of Contract requirements for inspection by referencing Specification Section.
 6. Description of inspection made, interpretation of inspection results, and notification of significant conditions at time of inspection.
 7. Requirements for follow-up inspections.

1.8 NON-COMPLIANCE CHECK-OFF LIST

- A. Maintain check-off list of work that does not comply with Contract Documents, stating specifically what is non-complying, date faulty work was originally discovered, and date work was corrected. No requirement to report deficiencies corrected same day it was discovered. Submit copy of Non-Compliance Check-Off List of non-complying work items to COR on a weekly basis.

1.9 COMPLETION AND INSPECTION OF WORK

- A. Prior to final acceptance by Contracting Officer, submit a certification signed by Contractor to Contracting Officer stating that all work has been inspected and all work, except as specifically noted, is complete and in compliance with Contract Documents.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

NOT USED

END OF SECTION

USPS Specification issued: 10/1/2020
Last revised: 9/23/2015

SECTION 015000

TEMPORARY FACILITIES AND CONTROLS

PART 1 – GENERAL

1.1 SUMMARY

- A. The Contractor must provide all temporary facilities and services required to complete the work and to comply with OSHA and other applicable regulations.
- B. The Contractor must maintain temporary facilities in a proper, safe, operating and sanitary condition for the duration of this Contract. Upon completion of this Contract, all such temporary work and facilities shall be removed in their entirety and the premises will be restored to its prior condition.

1.2 PROJECT SIGN

NOT USED

1.3 BULLETIN BOARD

- A. A weatherproof bulletin board, not less than 36 inches wide and 30 inches high, with hinged glass door must be provided adjacent to, or mounted on, the Contractor's project office. If adjacent to the office, the bulletin board must be securely mounted on not less than two posts. The bulletin board and posts must be painted or have approved factory finish. The bulletin board must be easily accessible at all times and must contain wage rates, equal opportunity notice, and other items required to be posted.
- B. The Contractor must maintain the bulletin board in good condition throughout the life of the project. The bulletin board will remain the property of the Contractor and upon completion of the project must be removed from the site and the premises will be restored to its prior condition.

1.4 CONSTRUCTION-USE UTILITIES

- A. The Contractor must arrange with the local utility companies for gas, water, and electricity required for construction under this project and must pay all costs in connection with them. The Contractor must, at its own expense, make all temporary connections and install distribution lines. All temporary lines must be maintained by the Contractor in a manner satisfactory to the COR and must be removed by the Contractor in like manner before final acceptance of the construction.

1.5 TEMPORARY ELECTRICITY

- A. Costs: The Contractor must make arrangements with the serving utility for power, pay deposits, and install equipment, poles, wiring, switches, and outlets necessary to provide adequate supply for lighting and power for construction purposes. The Contractor must pay for power used during construction and for removal of all temporary equipment.
- B. Service Required: The Contractor must provide temporary electric power throughout the construction period so that power can be secured at any desired point with no more than a 100-foot extension cord; power centers for miscellaneous tools and equipment used in the construction work (not less than one

per 2,000 square feet of floor space, consisting of a weatherproof distribution box with a minimum of four 20-amp, 120-volt grounded outlets with a circuit breaker protection for each outlet); lighting for safe and adequate working conditions throughout buildings and stairways (at least 1/4 watts of incandescent lighting per square foot, with a socket voltage of at least 110 volts and using 100 watt lamps minimum); power for construction site offices and other temporary storage and construction building; and power for testing and checking equipment welding units, and terrazzo grinders.

- C. Safety: The Contractor must provide and maintain lights and signs to prevent damage or injury and must illuminate all hazardous areas. Safety lights must be kept burning from dusk to dawn.
- D. Requirements of Regulatory Agencies: The Contractor must obtain permits as required by local government authorities; obtain easements as required across private property other than that of the owner for temporary power service; and comply with the National Electrical Code, applicable local codes, and utility regulations.
- E. Use of Permanent System: The Contractor must regulate any part of the permanent electrical system that is used for construction purposes in order to prevent interference with safety and with the orderly progress of the work. The Contractor must leave permanent electrical services in a condition as good as new.
- F. Materials: The materials may be new or used but must be adequate in capacity for the purposes intended and must not create unsafe conditions or violate the requirements of applicable codes. At the Contractor's option, patented specialty materials may be used if UL-approved.
- G. Conductors: The Contractor must use wire, cable, or busses of appropriate type, sized in accordance with the National Electrical Code for the applied loads. Use only UL-approved wire.
- H. Equipment: In compliance with NEMA standards, the Contractor must provide an appropriate enclosure for the environment in which the equipment is used.
- I. Installation: The Contractor must provide all required facilities, including transformers, conductors, poles, conduits, raceways, fuses, switches, fixtures, and lamps, located so as to avoid interference with cranes and materials-handling equipment, storage areas, traffic areas, and work under other contracts. The Contractor must install all work to have a neat and orderly appearance and to make it structurally sound throughout. The Contractor must maintain it to give continuous service and to provide safe working conditions. The Contractor must modify the service as required by the progress of the job.
- J. Removal: The Contractor must remove all temporary equipment and materials upon completion of construction, repair all damage caused by the installation, and the premises will be restored to its prior condition.

1.6 TEMPORARY HEATING AND VENTILATION

NOT USED

1.7 TEMPORARY WATER

NOT USED

1.8 SANITARY PROVISIONS

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TEMPORARY FACILITIES
AND CONTROLS

- A. The Contractor must provide and keep in neat and sanitary condition conveniences and accommodations for the use of the construction personnel necessary to comply with the requirements and regulations of the local department of health and of other bodies having jurisdiction.

1.9 APPROACHES AND EXITS

NOT USED

1.10 POSTAL SERVICE FIELD OFFICE

- A. The Contractor will maintain on site a complete set of drawings and specifications any time work is being done. The Contracting Officer and his representatives must have free access to the complete set of drawings and specifications at all times.
- B. Contractor must be equipped with cell phone or pager.

1.11 PROJECT PHOTOS - Required on construction contracts that exceed \$10,000.00. The number of photographs, and their content, shall be appropriate to the Contract Scope of Work, with their intended purpose being to illustrate, generally, the work in place for which this payment application applies.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

NOT USED

END OF SECTION

USPS Specification issued: 10/1/2020
Last revised: 9/23/2015

SECTION 016000

PRODUCT REQUIREMENTS

PART 1 – GENERAL

1.1 PRODUCT OPTIONS AND SUBSTITUTIONS

- A. Refer to the terms and conditions of the contract provisions and clauses, including those concerning *Optional Materials or Methods (Construction), Materials and Workmanship, Information On "Equal" Products and Brand Name or Equal*.
- B. Provide Products that comply with Contract Documents, which are undamaged and new at time of installation.
- C. Provide Products complete with accessories, trim, finish, safety guards, and other devices and details needed for complete installation and intended use and effect.
- D. Substitutions may be considered when the Contractor:
 - 1. Becomes aware of a product or procedure that is more environmentally sensitive or is otherwise advantageous to the Postal Service;
 - 2. Represents that he has personally investigated the proposed substitute product and determined that it is equal or superior in all respects to that specified;
 - 3. Will provide the same guarantee for the substitution that he would for that specified; and
 - 4. Will coordinate the installation of the accepted substitute, making such changes as may be required for the Work to be complete in all respects, at no additional cost to the Postal Service and at no extension of the Contract completion date.

1.2 PRODUCT DELIVERY REQUIREMENTS

- A. Transport and handle Products in accordance with manufacturer's instructions, using means and methods that will prevent damage, deterioration and loss, including theft.
- B. Schedule Product delivery to minimize long-term storage at Project site and prevent overcrowding of construction spaces.
- C. Coordinate Product delivery with installation schedule to assure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
- D. Deliver Products to Project site in undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
- E. Promptly inspect shipments to ensure that Products comply with project requirements, quantities are correct, Products are undamaged, and properly protected.
- F. Provide equipment and personnel to handle Products by methods to prevent soiling, disfigurement, or damage.

1.3 PRODUCT STORAGE AND HANDLING REQUIREMENTS

- A. Store and protect Products in accordance with manufacturers' published instructions, with seals and labels intact and legible.
- B. Store Products subject to damage by elements above ground, under cover in weathertight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's published instructions.
- C. For exterior storage of fabricated Products, place on sloped supports, above ground.
- D. Provide off-site storage and protection when Project site does not permit on-site storage or protection.
- E. Cover Products subject to deterioration with impervious sheet covering. Provide ventilation to avoid condensation or potential degradation of Products.
- F. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
- G. Provide equipment and personnel to store Products by methods to prevent soiling, disfigurement, or damage.
- H. Arrange storage of Products to permit access for inspection. Periodically inspect to verify Products are undamaged and are maintained in acceptable condition.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

NOT USED

END OF SECTION

USPS Specification issued: 10/1/2020
Last revised: 9/23/2015

SECTION 017300

EXECUTION

PART 1 – GENERAL

1.1 LAYOUT OF WORK

- A. The Contractor must lay out its work from Postal Service-established base lines and benchmarks indicated on the drawings and is responsible for all measurements based on them. The Contractor must furnish, at its own expense, all stakes, templates, platforms, equipment, tools, materials, and labor as may be required in laying out any part of the work from the base lines and benchmarks established by the Postal Service. The Contractor is responsible for the execution of the work to those lines and grades established or indicated by the COR.

1.2 CONTRACTOR'S TEMPORARY USE OF FACILITIES AND EQUIPMENT

- A. No new facilities or equipment intended for the permanent installation, including materials-handling vehicles, may be used for temporary purposes unless specified in the Contract or unless the Contractor has the written permission of the COR.

1.3 FOR CONTRACT WORK PERFORMED IN AN EXISTING OCCUPIED POSTAL FACILITY

- A. The Postal Service will continue to operate the facility during performance of the work. Accordingly, the Contractor must arrange and schedule contract work to facilitate such continued use of the site and building, with minimal disruption to Postal operations. Contract work that cannot be performed during normal Postal operating hours and must be performed after hours or during periods when the facility is normally closed, must be coordinated with the COR.
- B. If contract work is being performed on the roof, or above or near electronic equipment or mail processing equipment, Contractor must provide temporary interior protection above and/or around such equipment as appropriate or as indicated in construction documents. Interior protection shall be anti-static 6-mil poly. Remove temporary protection upon completion of the work. Coordinate interior protection with local management.

1.4 CLEANING

- A. Refer to the terms and conditions of the contract provisions and clauses, including those clauses *Debris and Clean Up*.
- B. Cleaning During Construction:
 - 1. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
 - 2. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
 - 3. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
 - 4. Collect and remove waste materials, debris, and rubbish from site as specified in the Environmental Compliance and Management Plan as required in Section 013543 - Environmental Procedures.

C. Final Cleaning:

1. Use cleaning materials and agents recommended by manufacturer or fabricator of surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property, or that might damage finished surfaces.
2. Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit of Work to condition expected from a commercial building cleaning and maintenance program. Comply with manufacturer's published instructions.
3. Complete following cleaning operations before requesting COR inspection for acceptance.
 - a. Clean Project Site, yard and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste materials, litter and foreign substances. Sweep paved areas broom clean. Remove petro-chemical spills, stains and other foreign deposits. Rake grounds that are neither planted nor paved, to a smooth even-textured surface.
 - b. Remove tools, construction equipment, machinery and surplus material from Project Site.
 - c. Remove snow and ice to provide safe access to building.
 - d. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - e. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics and similar spaces.
 - f. Broom clean concrete floors in unoccupied spaces.
 - g. Provide final cleaning, waxing, and buffing of resilient tile, in accordance with manufacturer's requirements.
 - h. Vacuum clean carpet and similar soft surfaces, removing debris and excess nap. Shampoo if required.
 - i. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other substances that are noticeable vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
 - j. Remove labels that are not permanent labels.
 - k. Touch-up and otherwise repair and restore marred exposed finishes and surfaces. Replace finishes and surfaces that can not be satisfactorily repaired or restored, or that show evidence of repair or restoration. Do not paint over "UL" and similar labels, including mechanical and electrical name plates.
 - l. Wipe surfaces of mechanical and electrical equipment, and other similar equipment. Remove excess lubrication, paint and mortar droppings and other foreign substances.
 - m. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
 - n. Replace air disposable filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills. Clean ducts, blowers, and coils if units were operated without filters during construction.
 - o. Clean light fixtures, lamps, globes and reflectors to function with full efficiency. Replace burned out bulbs, and defective and noisy starters in fluorescent and mercury vapor fixtures.
 - p. Leave Project clean and ready for occupancy.
4. Engage an experienced licensed exterminator to make a final inspection, and rid Project of rodents, insects, and other pests. Comply with regulations of local authorities having jurisdiction.
5. Remove temporary protection and facilities installed during construction to protect previously completed installations during remainder of construction.
6. Comply with governing regulations and safety standards for cleaning operations. Remove waste materials from Project Site and dispose of in accordance with requirements of local authorities having jurisdiction.
7. Where extra materials of value remain after completion of construction, they become Postal Service property and these materials should be stored as directed by COR.

PART 2 – PRODUCTS

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NOT USED

PART 3 – EXECUTION

NOT USED

END OF SECTION

USPS Specification issued: 10/1/2020
Last revised: 8/8/2017

SECTION 017419

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 – GENERAL

1.1 SUMMARY

- A. Section includes: Procedures for achieving the most environmentally conscious Work feasible within the limits of the Construction Schedule, Contract Sum, and available materials, equipment, and products.
 - 1. Participate in promoting efforts of Postal Service to create an energy-efficient and environmentally-sensitive structure.
 - 2. Use recycled-content, toxic-free, and environmentally-sensitive materials and equipment.
 - 3. Use environmentally-sensitive procedures.
 - a. Protect the environment, both on-site and off-site, during demolition and construction operations.
 - b. Prevent environmental pollution and damage.
 - c. Effect optimum control of solid wastes.
- B. Related Documents: The Contract Documents, as defined in Section 011000 - Summary of Work, apply to the Work of this Section. Additional requirements and information necessary to complete the Work of this Section may be found in other documents.
- C. Related Sections:
 - 1. Section 013200 - Construction Progress Documentation.
 - 2. Section 014000 - Quality Requirements: Contractor's Daily Report.
 - 3. Section 015000 - Temporary Facilities And Controls: Temporary ventilation, progress cleaning and waste removal.
 - 4. Section 016000 - Product Requirements: Substitutions.
 - 5. Section 017704 – Closeout Procedures and Training: Record submittals.
 - 6. Section 024119 – Selective Structure Demolition.

1.2 DEFINITIONS

- A. Adequate ventilation: Ventilation, including air circulation and air changes, required to cure materials, dissipate humidity, and prevent accumulation of dust fumes, vapors, or gases.
- B. Construction and demolition waste: Includes solid wastes, such as building materials, packaging, rubbish, debris, and rubble resulting from construction, remodeling, repair, and demolition operations.
 - 1. Rubbish: Includes both combustible and noncombustible wastes but excludes recyclable materials such as paper, boxes, glass, metal, lumber scrap and metal cans.
 - 2. Debris: Includes both combustible and noncombustible wastes, such as leaves and tree trimmings, stumps and rubble that result from construction or maintenance and repair work.
- C. Chemical waste: Includes petroleum products, bituminous materials, salts, acids, alkalis, herbicides, pesticides, organic chemicals, and inorganic wastes.
- D. Diversion: Redirection of waste ordinarily deposited in a municipal landfill to a recycling facility or to another destination for reuse.

- E. Environmental pollution and damage: The presence of chemical, physical, or biological elements or agents, which adversely affect human health or welfare; unfavorably alter ecological balances; or degrade the utility of the environment for aesthetic, cultural, or historical purposes.
- F. Hazardous materials: Includes pesticides, biocides, and carcinogens as listed by recognized authorities, such as the Environmental Protection Agency (EPA) and the International Agency for Research on Cancer (IARC).
- G. Interior final finishes: Materials and products that will be exposed at interior, occupied spaces; including flooring, wallcovering, finish carpentry, and ceilings.
- H. Municipal Solid Waste Landfill: A permitted facility that accepts solid, non-hazardous waste such as household, commercial, and industrial waste, including construction and demolition waste.
- I. Packaged dry products: Materials and products that are installed in dry form and are delivered to the site in manufacturer's packaging; including carpets, resilient flooring, ceiling tiles, and insulation.
- J. Sediment: Soil and other debris that has been eroded and transported by storm or well production runoff water.
- K. Sanitary wastes:
 - 1. Garbage: Refuse and scraps resulting from preparation, cooking, distribution, or consumption of food.
 - 2. Sewage: Domestic sanitary sewage.
- L. Wet products: Materials and products installed in wet form, including paints, sealants, adhesives, and special coatings.

1.3 SUBMITTALS

- A. Solid Waste Management and Environmental Protection Plan: Prepare and ***submit at the Preconstruction Meeting*** a Solid Waste Management and Environmental Protection Plan including, but not limited to, the following:
 - 1. Procedures for Recycling/Re-Use Program.
 - 2. Schedule for application of interior finishes.
 - 3. Revise and resubmit Solid Waste Management and Environmental Protection Plan as required by Postal Service.
 - a. Approval of the Contractor's Solid Waste Management and Environmental Protection Plan, will not relieve the Contractor of responsibility for adequate and continuing control of pollutants and other environmental protection measures.
 - 4. Any permits required by local, state or federal agencies.
- B. With each Contractor's Report as specified in Section 014000 – Quality Requirements, submit an updated Summary Of Solid Waste Disposal And Diversion. Submit on form in Appendix A of this Section. Include manifests, weight tickets, receipts, and invoices specifically identifying the Project and waste material for:
 - 1. Municipal Solid Waste Landfills.
 - 2. Recycling/Reuse Facilities.
- C. With Record Submittals as specified in Section 017704 - Closeout Procedures and Training, submit the following:

1. Final Summary Of Solid Waste Disposal And Diversion. Submit on form in Appendix A of this Section.
2. Resource Conservation and Recovery Act Project Summary. Submit on form in Appendix B of this Section.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

3.1 RECYCLING AND REUSE

- A. Collection: Implement a recycling/reuse program that includes separate collection of waste materials of the following types as appropriate to authorized local and regional recycling/reuse facilities:
 1. Asphalt.
 2. Concrete.
 3. Metal.
 - a. Ferrous.
 - b. Non-ferrous.
 4. Wood.
 5. Debris.
 6. Glass.
 7. Clay brick.
 8. Paper/Cardboard.
 9. Plastic.
 10. Gypsum.
 11. Paint.
 12. Carpet.
 13. Others as appropriate.
- B. Recycling/reuse centers: Contact state and/or local governmental solid waste offices, Environmental Protection Agency (EPA) regional offices, and authorized applicable non-profit organizations.
 1. Asphalt
 2. Concrete.
 3. Metal.
 4. Wood.
 5. Debris.
 6. Glass.
 7. Clay brick.
 8. Paper/Cardboard.
 9. Plastic.
 10. Gypsum.
 11. Paint.
 12. Carpet.
 13. Others as appropriate.

- C. Handling:
 - 1. Clean materials which are contaminated prior to placing in collection containers. Deliver materials free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to recycling process.
 - 2. Arrange for collection by or delivery to the appropriate recycling or reuse facility.
- D. Participate in re-use programs: identify local and regional re-use programs, including but not limited to non-profit organizations such as schools, local housing agencies, and public arts programs, that accept used materials. The following are examples for Contractor's information only.
 - 1. National materials exchange network, such as CAL-MAX, a free service provided by various state and regional offices, designed to help businesses find markets for materials that traditionally would be discarded. The premise of the program is that material discarded by one business may be a resource for another business.
 - a. Items and regions covered by materials exchange programs may vary. Contact the applicable regional materials exchange program. In California, contact CAL-MAX at (916) 255-2369.
 - 2. Habitat For Humanity, a non-profit housing organization that rehabilitates and builds housing for low income families.
 - a. Sites requiring donated materials vary. Contact the national hotline (800) HABITAT.
- E. Rebates, tax credits, and other savings obtained for recycled or re-used materials accrue to Contractor.

3.2 ENVIRONMENTAL CONTROLS

- A. Protection of natural resources: Preserve the natural resources within the Project boundaries and outside the limits of permanent Work performed under this Contract in their existing condition or restore to an equivalent or improved condition as approved by Postal Service, upon completion of the Work.
 - 1. Confine demolition and construction activities to work area limits indicated on the Drawings and as directed by COR.
 - a. Temporary construction: As specified in Section 015000 - Temporary Facilities And Controls.
 - b. Demolition and salvage operations: As specified in Section 024119 - Selective Structure Demolition.
 - c. Disposal operations for demolished and waste materials that are not identified to be salvaged, recycled or reused:
 - 1) Remove debris, rubbish, and other waste materials resulting from demolition and construction operations, from site.
 - 2) No burning permitted.
 - 3) Transport materials with appropriate vehicles and dispose off-site to areas which are approved for disposal by governing authorities having jurisdiction.
 - 4) Avoid spillage by covering and securing loads when hauling on or adjacent to public streets or highways. Remove spillage and sweep, wash, or otherwise clean project site, streets, or highways.
 - 5) Comply with applicable federal, state and/or local regulations.
 - 2. Water resources as follows:
 - a. Comply with requirements of the National Pollutant Discharge Elimination System (NPDES) and the State Pollutant Discharge Elimination System (SPDES).
 - b. Oily substances: Prevent oily or other hazardous substances from entering the ground, drainage areas, or local bodies of water.

- 1) Store and service construction equipment at areas designated for collection of oil wastes.
- c. Mosquito abatement: Prevent ponding of stagnant water conducive to mosquito breeding habitat.
- d. Prevent run-off from site during demolition and construction operations.
3. Land resources: Prior to construction, identify land resources to be preserved within the Work area. Do not remove, cut, deface, injure, or destroy land resources including trees, shrubs, vines, grasses, top soil, and land forms without permission from Postal Service.
4. Air Resources: Prevent creation of dust, air pollution, and odors.
 - a. Use water sprinkling, temporary enclosures, and other appropriate methods to limit dust and dirt rising and scattering in air to lowest practical level.
 - 1) Do not use water when it may create hazardous or other adverse conditions such as flooding and pollution.
 - b. Do not use any hazardous chemicals on USPS property when it is a shared work space with USPS employees. If chemicals are authorized for use, store volatile liquids, including fuels and solvents, in closed containers.
 - c. Properly maintain equipment to reduce gaseous pollutant emissions.
 - d. Interior final finishes: Schedule construction operations involving wet products prior to packaged dry products to the greatest extent possible in accordance with Postal Service approved Solid Waste Management and Environmental Protection Plan.
 - e. Temporary Ventilation: As specified in Section 015000 - Temporary Facilities And Controls, and as follows:
 - 1) Provide adequate ventilation during and after installation of interior wet products and interior final finishes.
 - 2) Provide adequate ventilation of packaged dry products prior to installation. Remove from packaging and ventilate in a secure, dry, well-ventilated space free from strong contaminant sources and residues. Provide a temperature range of 60 degrees F minimum to 90 degree F maximum continuously during the ventilation period. Do not ventilate within limits of Work unless otherwise approved by the COR.
 - f. Pre-occupancy ventilation: After final completion and prior to initial occupancy, provide adequate ventilation for minimum 5 days. Pre-occupancy ventilation procedures:
 - 1) Use supply air fans and ducts only.
 - 2) Temporarily seal exhaust ducts.
 - 3) Temporarily disable exhaust fans.
 - 4) Provide exhaust through operable windows or temporary openings.
 - 5) Provide temporary exhaust fans as required to pull exhaust air from deep interior locations. Stair towers may be used for exhausting air from the building during the temporary ventilation.
 - 6) After pre-occupancy ventilation and prior to final testing and balancing of HVAC system, replace air filters and make HVAC system fully operational.
5. Fish and Wildlife Resources: Manage and control construction activities to minimize interference with, disturbance of, and damage to fish and wildlife.
6. Noise Control: Perform demolition and construction operations to minimize noise. Perform noise producing work in less sensitive hours of the day or week as directed by Postal Service .
 - a. Repetitive, high level impact noise will be permitted only between the hours of 8:00 a.m. and 6:00 p.m. Do not exceed the following dB limitations:

Sound Level in dB

70
80

Time Duration of Impact Noise

More than 12 minutes in any hour
More than 3 minutes in any hour

- b. Provide equipment, sound-deadening devices, and take noise abatement measures that are necessary for compliance.

END OF SECTION

USPS Master Specifications, issued: 10/1/2020
Last revised: 9/17/2013

Appendix A

SUMMARY OF SOLID WASTE DISPOSAL AND DIVERSION

Project Name: _____ FMS Project Number: _____

Contractor Name: _____ License Number: _____

Contractor Address: _____

Solid Waste Material	Date Material Disposed/ Diverted	Amount Disposed/ Diverted (ton or cu. yd)	Municipal Solid Waste Facility (name, address, & phone number)	Recycling/Reuse Facility (name, address, & phone number)	Comments (if disposed, state why not diverted)
Asphalt					
Concrete					
Metal					
Wood					
Debris					
Glass					
Clay brick					
Paper/ Cardboard					
Plastic					
Gypsum					
Paint					
Carpet					
Other:					

Signature: _____ Date: _____

Switchgear Replacement
Hartford, CT - P&DC
B43529/18034.00

017419-7

USPS

Date: 10/1/2020

CONSTRUCTION WASTE
MANAGEMENT AND DISPOSAL

RESOURCE CONSERVATION AND RECOVERY ACT - PROJECT SUMMARY.

Project Name: _____ FMS Project Number: _____

Contractor Name: _____ License Number: _____

Contractor Address: _____

1.0 EPA GUIDELINE ITEMS

A. Fly Ash:

1. Total dollar amount of concrete and cement provided for this project.
\$_____.
2. Total dollar amount of concrete and cement containing fly ash provided for this project.
\$_____.
3. Were there any technical impediments to increasing the amount of concrete and cement containing fly ash provided for this project? _____.
a. If yes, please explain. _____

_____.

B. Building Insulation Products:

1. Total dollar amount of building insulation products provided for this project.
\$_____.
2. Total dollar amount of building insulation products containing recycled materials provided for this project. \$_____.
3. Were there any technical impediments to increasing the amount of building insulation products containing recycled materials provided for this project? _____.
a. If yes, please explain. _____

_____.

C. Carpet:

1. Total dollar amount of carpet provided for this project. \$_____.
2. Total dollar amount of carpet containing recycled materials provided for this project.
\$_____.
3. Were there any technical impediments to increasing the amount of carpet containing recycled materials provided for this project? _____.
a. If yes, please explain. _____

_____.

D. Floor Tiles (resilient):

1. Total dollar amount of floor tile (resilient) provided for this project. \$_____.
2. Total dollar amount of floor tile (resilient) containing recycled materials provided for this project. \$_____.
3. Were there any technical impediments to increasing the amount of floor tile (resilient) containing recycled materials provided for this project? _____.

a. If yes, please explain. _____

_____.

E. Floor Tiles (ceramic):

1. Total dollar amount of floor tile (ceramic) provided for this project. \$_____.
2. Total dollar amount of floor tile (ceramic) containing recycled materials provided for this project. \$_____.
3. Were there any technical impediments to increasing the amount of floor tile (ceramic) containing recycled materials provided for this project? _____.

a. If yes, please explain. _____

_____.

F. Hydraulic Mulch:

1. Total dollar amount of hydraulic mulch provided for this project. \$_____.
2. Total dollar amount of hydraulic mulch containing recycled materials provided for this project. \$_____.
3. Were there any technical impediments to increasing the amount of hydraulic mulch containing recycled materials provided for this project? _____.

a. If yes, please explain. _____

_____.

G. Compost:

1. Total dollar amount of compost provided for this project. \$_____.
2. Total dollar amount of compost containing recycled materials provided for this project. \$_____.
3. Were there any technical impediments to increasing the amount of hydraulic mulch containing recycled materials provided for this project? _____.

a. If yes, please explain. _____

_____.

2.0 SPECIFICATIONS

NOT USED

3.0 SOLID WASTE PREVENTION

- A. Total dollar amount of solid waste disposed (landfill) for this project. \$_____.
- B. Total weight of solid waste disposed (landfill) for this project. \$_____.

4.0 RECYCLING

- A. Total dollar value of solid waste diverted from landfill and recycled or reused for this project. (Express as total dollar amount for solid waste disposal in landfill for equivalent type and amount of diverted waste.)
\$_____.
- B. Total weight of solid waste diverted from landfill and recycled or reused for this project. (Express as total weight for solid waste disposal in landfill for equivalent type and amount of diverted waste.)
Tons_____.

5.0 COMMENTS

- A. Comments and suggestions for increasing amount of recycled materials used in construction materials.

_____.

- B. Comments and suggestions for improving solid waste prevention and recycling efforts during construction.

_____.

Signature: _____ Date: _____

SECTION 017704

CLOSEOUT PROCEDURES AND TRAINING

PART 1 – GENERAL

1.1 MANUALS

- A. Purpose: Operation and maintenance manuals are for the training of, and use by, Postal Service employees in the operation and maintenance of the systems and related equipment as specified below. The manuals must consist of instruction on systems and equipment. A separate manual or chapter must be prepared for each of the following classes of equipment or system:
1. Mechanical systems.
 2. Electrical systems.
- B. Content: Unless otherwise indicated, each chapter must contain the following, as applicable:
Introduction.
Table of contents.
Description of system (including design intent and considerations).
- C. Preparation: The outline below is intended as a general guide for preparing the manuals. The manuals must be prepared to provide for the optimum operation and maintenance of the various systems. The description of systems and general operating instructions for plumbing and electrical manuals may cover only complicated or unusual parts of these systems, such as sewage ejectors, transformers, high tension switchgear, and signal and alarm systems. Manufacturer's literature and data must be those of the actual equipment installed under contract for the particular facility. Further guidance is available in the ASHRAE Handbook, 1984, Systems Volume, Chapter 39, Mechanical Maintenance.
- D. Suggested Outline for Operation and Maintenance (O&M) Manuals: This is a suggested outline, with general requirements of O&M manuals. The outline is presented to indicate the extent of material to be covered and the individual items required in manuals for Mail Processing Facilities. The outline may be modified to suit specific installations; however, the purpose of the manual must be fulfilled. The manual is not intended to duplicate manufacturers' data, but proper references must be made in the text of the O&M manual to indicate that that information is applicable and where it is located.
1. Part I. Description and Design Intent
 - a. Introduction
 - 1) Provide a brief description of project and purpose of the maintenance manual. The following statements must be included: "Operation and maintenance of this equipment must be performed in accordance with this manual and posted instructions, subject to compliance with applicable technical guides and standards issued by USPS. It is recognized that minor changes in control points and settings will be required, based on actual operating experience, to correct varying conditions and improve operation. When such changes appear necessary, they must be submitted to the maintenance manager for consideration. Upon approval of any changes, the applicable portions of all copies of the manual and proposed instructions must be revised and reissued, and any change in operating procedure brought to the attention of all operating personnel."
 - 2) "This manual is specifically developed to assist the Postal official in charge at the facility to operate and maintain the building systems and equipment. Manufacturers' recommendations set forth for certain components must be followed during the complete warranty period for that equipment."

- 3) Contents of Manual. This portion of the introduction must explain that the manual is to contain complete operating, maintenance, and safety instructions for all equipment listed. It must also contain any other appropriate references as required to outline an explanation of the manuals and major categories of reference material required with the manuals.
- b. Table of Contents
 - 1) The table of contents must list numbers and titles of chapters, sections, and main paragraphs, with their page numbers. Each volume in a set of manuals must contain its own table of contents. Publications containing 10 or more illustrations or tables must include a list of illustrations or tables, as applicable. These lists must show number, title, and page number of each illustration and table. Following is a typical table of contents:
 - a. Mechanical Systems
 - 1.) Space conditioning
 - 2.) Heating
 - 3.) Central chilled water and distribution
 - 4.) HVAC instrumentation and controls
 - b. Electrical Systems
 - 1.) Incoming Service
 - 2.) Electrical power distribution
 - 3.) Lighting and lighting controls
 - 4.) Fire alarm
 - 5.) Emergency lighting unit
2. Part II. Operating Sequence and Procedures
 - a. Contents: Each chapter must describe the procedures necessary for Postal Service personnel to operate the system and equipment covered in that chapter.
 - b. Operating Procedures: The operating procedures must be divided into four subsections: Startup, Operation, Emergency Operation, and Shutdown.
 - 1) Startup: Give complete instructions for energizing the equipment and making initial settings and adjustments whenever applicable. If equipment is fully automatic, a statement to that effect is all that is required. If a specific sequence of steps must be performed, give step-by-step instructions in the proper sequence. If timing- (such as warm-up between power-on and adjustment) is important, clearly state the specific minimum time required at the proper point in the procedure. Refer to controls and indicators by panel; make references consistent with the nomenclature used in illustrations and tables of controls and indicators. If preliminary settings differ for different modes of operations, give procedures for each mode.
 - 2) Operation: Give detailed instructions in proper sequence for each mode of operation. When, for a given action on the part of the operator, alternate equipment responses are possible, give the appropriate operation reaction to each.
 - 3) Emergency Operation: If some functions of the equipment can be operated while other functions are disabled, give instructions for operations under these conditions. Include here only those alternate methods of operation (from normal) that the operator can follow when there is a partial failure or malfunctioning of components, or other unusual condition.
 - 4) Shutdown: Include instructions for stopping and securing the equipment after operation. If a particular sequence is required, give step-by-step instructions in that order.

3. Part III. Maintenance Instructions and Requirements
- a. Contents: Each chapter must describe the procedures necessary for Postal Service personnel to perform the maintenance on the systems and equipment covered in that chapter. Emphasis must be placed on the method of mechanical control of systems and equipment from a maintenance standpoint. References must be made, as appropriate, to drawings, schematics, and sequences of operation included as part of the construction Contract drawings and specifications that show piping and equipment arrangements and items of control. Prints of these drawings must be reduced to 11 inches x 17 inches for insertion in the manuals. Drawings must represent the "as-built" condition.
 - b. Maintenance Procedures: The maintenance procedures must be divided into two categories: Preventive Maintenance and Corrective Maintenance.
 - 1. Preventive Maintenance
 - a. Provide a schedule for preventive maintenance. State, preferably in tabular form, the recommended frequency of performance for each preventive maintenance task (cleaning, inspection, and scheduled overhauls).
 - b. Provide instruction and schedules for all routine maintenance cleaning and inspection, with recommended lubricants.
 - c. If periodic inspection of equipment is required for operation, cleaning, or other reasons, indicate the items to be inspected and give the inspection criteria for, but not limited to, the following:
 - 1.) Motors
 - 2.) Controls
 - 3.) Filters
 - 4.) Heat exchangers
 - 2. Provide instruction for minor repairs or adjustments required for preventive maintenance routines. Minor repair and adjustment must be limited to repairs and adjustments that may be performed without special tools or test equipment and that require no special training or skills. Identify test points and give values for each.
 - c. Corrective Maintenance
 - 1. Corrective Maintenance: Corrective maintenance instructions must be predicated upon a logical effect-to-cause troubleshooting philosophy and a rapid replacement procedure to minimize equipment downtime. Instructions and data must appear in the normal sequence of corrective maintenance, for example, troubleshooting first, repair and replacement of parts second, and then the parts list.
 - 2. Troubleshooting: This information must describe the general procedure for locating malfunctions and must give, in detail, any specific remedial procedures or techniques. The data shown are intended to isolate only the most common equipment deficiencies. Troubleshooting tables, charts, or diagrams may be used to present specific procedures. A guide to this type must be a three-column chart. The columns must be entitled Malfunction, Probable Cause, and Recommended Action. The information must be alphabetically arranged by component, and each component must, in turn, list deficiencies that may be expected. Each deficiency must contain one or more problems with a recommended correction.
 - 3. Repair and Replacement: Indicate the repair and replacement procedures most likely to be required in the maintenance of the equipment. Information included here must consist of step-by-step instructions for repair and replacement of defective items. Include all information required to accomplish repair or replacement, including

information such as torque values. Identify all tools, special equipment, and materials that may be required. Identify uses for maintenance equipment. The paragraphs must contain headings to identify the topics covered.

4. Safety Precautions: This subsection must comprise a listing of safety precautions and instructions to be followed before, during, and after repairs or adjustments are made or routine maintenance is performed.
 - d. Manufacturers' Brochures: Include manufacturers' descriptive literature covering devices used in the system, together with illustrations, exploded views, and renewal parts lists. This section must also include special devices manufactured by the Contractor.
 - e. Special Maintenance: Provide information of a maintenance nature covering warranty items that have not been discussed elsewhere.
 - f. Shop Drawings: Provide a copy of all approved shop drawings covering approval of equipment for the project with the manufacturers' brochures.
 - g. Spare Parts Lists: Include a recommended spare parts list for all equipment furnished for the project. The parts list must include a tabulation of descriptive data for all the electrical-electronic spare parts and all the mechanical spare parts proposed for each type of equipment or system. Each part must be properly identified by part number and manufacturer.
 - h. Warranty: Include a copy of the "special" or extended warranty in the operation and maintenance manual.
- E. Submittal, In both "hard" and electronic DVD or CD-ROM format:
1. Preliminary Submittal: Two draft copies of the completed manuscript for items in this outline must be submitted to the COR for review within 30 days after approval of equipment to be provided. One copy will be returned to the Contractor within 15 days after submittal and, if required, must be revised and resubmitted within 15 days.
 2. Final Submittal: Six complete sets of manuals must be furnished to the COR not later than 30 days before completion of the project.
 3. Final Submittal must be accepted by the COR before training can begin.

1.2 POSTED OPERATING INSTRUCTIONS

- A. General. Operating instructions and diagrams must be prepared for posting near the equipment. Posted operating instructions must be photographic or equal non-fading reproductions framed under glass or encased in non-discoloring plastic and must be mounted in locations as directed. Copies of the posted operating instructions must also be used with the O&M manuals as a basis for training Postal Service personnel in the operation and maintenance of systems and related equipment installed under contract at the facility.
- B. Posted operating instructions must consist of simplified, consolidated equipment, control, and power diagrams graphically representing the entire system and actual equipment installed, including concise written instructions on how to start and stop systems, what settings and conditions are to be observed, and what control adjustments are to be made or maintained by the operation. Posted operating instructions must include, but are not limited to the following:
1. Boiler and burner controls.
 2. Refrigeration controls.
 3. Heating, ventilating, and air-conditioning controls for each system.
 4. Controls for dust collection systems.
 5. One-line schematic diagrams of water supply (plumbing).
 6. One-line diagrams of steam distribution and hot water and chilled water systems, including risers, main shutoff valves, balancing cocks, and the like.
 7. One-line isometric diagrams of sanitary drainage.

1.3 TRAINING

- A. The Contractor must train Postal Service personnel in the operation and maintenance of mechanical and electrical equipment. Coordination must be maintained with systems designers for developing the hours of instruction and scope of material to be covered. Training of Postal Service personnel must not begin until the COR has approved the final submittal copy of each O&M manual.
- B. Schedule Submittal: The proposed scope of training and materials and instruction schedule must be submitted for review and approval approximately 30 days before the scheduled completion of the buildings. Mutually agreeable dates for training must be arranged with the COR, but the training must be completed before final acceptance of the facility.
- C. Scope of Training: Training must include classroom and on-the-job instructions by qualified installation and maintenance personnel having the necessary knowledge, experience, and teaching skills. The use of recording on digital media (DVD or CD discs) during the instruction period is required. Discs must be turned over to the COR after training has been completed.
- D. Time Period of Training: The minimum specific hours of training time required for each category of major equipment and systems is indicated below. Past experience indicates a workable ratio in the vicinity of approximately 25 percent classroom to 75 percent application, except that the ratio may be reversed for control systems. The COR must have the option of redistributing the training times, subject to the total time specified. Training must be presented on an 8-hour per day, 5-day per week schedule, with all reading assignments and review to be within this period.

1.4 TRAINING PERIOD

Item	Time (Hours)
Electrical System Covers all building services, lighting, lighting controls, and intercommunications, and security system.	8 (2 – 4 hour sessions to cover all 3 tours)

1.5 TRAINING PARTICIPATION SHEETS

- A. Submit to the COR sign-in sheets with the dates and names of all training participants. Training sheets must be reviewed and certified by an authorized facility manager.

1.6 OTHER CLOSEOUT SUBMITTALS

- A. Additional requirements for Systems Manuals, Operating Instructions, Training and other deliverables are contained in individual Specification Sections. All closeout requirements must be provided to and accepted by the COR prior to requesting final payment. Examples of additional closeout requirements include, but are not limited to, the following
 1. Final Punch-List with all items certified as complete.
 2. In accordance with the terms and conditions of the contract provisions and clauses, including those concerning *Record "As Built" Drawings*, the Contractor shall submit certified As-Built Record Drawings and Specifications in the quantities and media specified.
 3. In accordance with the terms and conditions of the contract provisions and clauses, including those concerning *Warranty*, the Contractor shall submit all transferable

guarantees and warranties for equipment, materials and installations furnished by any manufacturer, supplier, or installer.

4. Signed Asbestos and Lead-Based Paint Certificate.
5. RE-4 Certification of Accessibility (CoA) and Facility Accessibility Survey Report.
6. Material Safety Data Sheets.
7. Signed and sealed Contractor Release of Claims.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

NOT USED

END OF SECTION

USPS Master Specifications, issued: 10/1/2020
Last revised: 9/17/2013

SECTION 024119
SELECTIVE STRUCTURE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Procedures for demolition and removal of existing building elements.
 - 2. Removal of designated building equipment and fixtures.
 - 3. Salvaged items.
 - 4. Salvaged material.
 - 5. Salvaged items for re-use.
- B. Related Documents: The Contract Documents, as defined in Section 011000- Summary of Work, apply to the Work of this Section. Additional requirements and information necessary to complete the Work of this Section may be found in other documents.
- C. Related Sections:
 - 1. Section 013543- Environmental Procedures: Recycling and reuse of waste materials.

1.2 SYSTEM DESCRIPTION

- A. The extent of Selective Demolition Work is that Work necessary, and required to facilitate the new construction indicated.
- B. Demolition shall be such that all construction, new and existing, can be performed, and completed in accordance with the construction documents.
- C. The contractor shall visit the project site and familiarize himself with the existing conditions and project requirements.
- D. Verify the scope of the Work under this Section including salvage material. The United States Postal Service will be responsible for removing all materials and equipment which the United States Postal Service wishes to salvage prior to the beginning of this Work.
- E. The existing fire protection sprinkler system shall remain in place.

1.3 QUALITY ASSURANCE

- A. Engage only personnel who can demonstrate not less than five years successful experience in Work of similar character.
- B. Performance Criteria:
 - 1. Requirements of Structural Work: Do not cut structural work in a manner resulting in a reduction of load-carrying capacity of load/deflection ratio.
 - 2. Operational and Safety Limitations: Do not cut operational elements and safety-related components in a manner resulting in a reduction of capacities to perform in a manner intended or resulting in a decreased operational life, increased maintenance or decreased safety.

3. Visual Requirements: Do not cut work which is exposed on the exterior or exposed in occupied spaces of the building in a manner resulting in a reduction of visual qualities or resulting in substantial evidence of the demolition work judged by the Architect to be cut and patched in a visually unsatisfactory manner.
4. Loading: Do not superimpose loads at any point upon existing structure beyond design capacity including loads attributable to materials, construction equipment, demolition operations and shoring and bracing.
5. Vibration: Do not use means, methods, techniques or procedures which would induce vibration into any element of the structure.
6. Fire: Do not use means, methods, techniques or procedures which would produce any fire hazard unless otherwise approved by Contracting Officer.
7. Water: Do not use means, methods, techniques or procedures which would produce excessive water run-off, and water pollution.
8. Air Pollution: Do not use means, methods, techniques or procedures which would produce uncontrolled dust, fumes or other damaging air pollution.

1.4 PROJECT SITE

- A. Indicated "Existing Construction" was obtained from existing drawings or other information which may not reflect actual conditions. The Contractor shall verify all existing conditions and notify the Contracting Officer of discrepancies before proceeding with the Work.
- B. Perform the removal, cutting, drilling, etc., of existing work with extreme care, and using small tools in order not to jeopardize the structural integrity of the building.
- C. Occupancy: Contractor shall not have full use of the facility during construction.
- D. Condition of Structure: The United States Postal Service assumes no responsibility for the actual condition of portions of the structure to be demolished.
- E. Partial removal: Items of salvageable value to the Contractor may be removed from the structure as the work progresses if not claimed by the United States Postal Service. Salvaged items must be transported from the site as they are removed.
- F. Protection: Make sure that the safe passage of persons around the area of demolition is maintained during the demolition operation. Conduct operations to prevent injury to adjacent buildings, structures, other facilities, and persons.

1.5 PROTECTION OF EXISTING CONSTRUCTION

- A. Provide temporary protection of existing construction (floors, roof, and walls) when adjoining new work and in traffic areas.
- B. Provide temporary construction, constructed of framing and plywood, to protect existing construction and surrounding surfaces from damage by movement of materials and personnel.
- C. The contractor is responsible for all damage to existing structure and shall replace or repair all areas of damage.
- D. Repair, replace, or rebuild existing construction as required or as directed which has been removed, altered or disrupted to allow for new construction. Existing construction shall be corrected to match adjacent construction, new or existing.

- E. Perform cutting of existing concrete and masonry construction with saws and core drills. Do not use jack-hammers or explosives.

1.6 SHORING AND BRACING

- A. Provide temporary shoring of existing construction to allow removal of existing structural elements. Maintain shoring until new structural elements are in place and accepted.

PART 2 - PRODUCTS

2.1 SALVAGED ITEMS

- A. The Contract Documents indicate the existing materials that are to be reinstalled in the new construction. The Contractor shall remove, protect and reinstall these items as indicated.
 - 1. Items for "Reinstallation" will be indicated as such within the Contract Documents.
- B. Materials scheduled for reinstallation which are damaged by the Contractor to the extent that they cannot be reinstalled shall be replaced by the Contractor with equal quality material at no additional cost to the United States Postal Service.
- C. Coordinate with the Contracting Officer on disposition of salvage items not scheduled for reinstallation, demolished materials, and equipment. Salvaged items, not reinstalled, shall be delivered, as directed, to the United States Postal Service.

2.2 SALVAGED MATERIALS

- A. Removed and salvaged materials of value not designated for reinstallation, unless claimed as salvage by the United States Postal Service, shall become the property of the Contractor and shall be removed from the premises by the Contractor and recycled, reused or disposed of as specified in Section 013543- Environmental Procedures.
- B. The United States Postal Service will remove or, under separate contract, have all materials and equipment which the United States Postal Service requires removed prior to Work under this Section begins.

2.3 SALVAGED ITEMS FOR RE-USE

- A. Materials and items scheduled for re-use which are damaged by the contractor to the extent which they cannot be re-used shall be replaced by the Contractor at no additional cost to the United States Postal Service.
- B. Contractor shall remove and salvage the existing roof hatch and access ladder for re-use. Store on site in protected area for reinstallation as indicated.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Section 017300 - Execution: Verification of existing conditions before starting work.
- B. Verification of Conditions: Verify that field measurements, surfaces, substrates and conditions are as required, and ready to receive Work.
- C. Report in writing to Contracting Officer prevailing conditions that will adversely affect satisfactory execution of the Work of this Section. Do not proceed with Work until unsatisfactory conditions have been corrected.
- D. By beginning Work, Contractor accepts conditions and assumes responsibility for correcting unsuitable conditions encountered at no additional cost to the United States Postal Service.

3.2 PREPARATION

- A. Temporary Support: Provide adequate temporary support for work to be cut to prevent failure. Do not endanger other work.
- B. Provide adequate protection of other work during selective demolition to prevent damage and provide protection of the work from adverse weather exposure.

3.3 PROCEDURE

- A. Employ only skilled tradesmen to perform selective demolition.
- B. Cut work by methods least likely to damage work to be retained and work adjoining.
- C. In general, where physical cutting action is required, cut work with sawing and grinding tools, not with hammering and chopping tools. Core drill openings through concrete and masonry work.
- D. Patch with seams which are durable and as invisible as possible. Comply with specified tolerances for the work.
- E. Where selective demolition terminates at a surface or finish to remain, completely remove all traces of material selectively demolished, including mortar beds. Provide smooth, even, substrate transition.

3.4 POLLUTION CONTROLS

- A. Use temporary enclosures and other suitable methods to limit the amount of dust and dirt rising and scattering in the air to the lowest practical level.
- B. Comply with governing authorities pertaining to environmental protection.
 - 1. Protect natural resources as specified in Section 013543 - Environmental Procedures.

- C. Clean adjacent portion of the structure and improvement of dust, dirt and debris caused by demolition operations, as directed by Contracting Officer and governing authorities. Return adjacent areas to conditions existing prior to the start of the work.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

- A. Collect, recycle, reuse, and dispose of demolished materials as specified in Section 013543 - Environmental Procedures and as approved by the U.S. Postal Service in the Solid Waste Management and Environmental Protection Plan.

3.6 SCHEDULE OF SELECTIVE DEMOLITION

- A. Electrical Service:
 - 1. Remove all abandoned electrical switchboards, conduit, boxes, and wiring back to the existing electrical service which is to remain.
 - 2. Remove roofing as indicated on the drawings.
 - 3. Remove roof decking where indicated on the drawings.
 - 4. Remove insulated metal siding where indicated on the drawings. (Also, refer to the phasing requirements on A1.01).
- B. Provide additional selective demolition as indicated and required by the Contract Documents and as required for indicated new construction.

END OF SECTION

USPS CSF Specifications issued: 10/1/2020
Last revised: 9/21/2015

SECTION 051200
STRUCTURAL STEEL

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Structural steel framing members, support members, with required bracing, welds, and fasteners.
 - 2. Base plates.
 - 3. Grouting under base plates.
- B. Related Sections:
 - 1. Section 055213 - Pipe and Tube Railings.
 - 2. Section 055313 - Bar Gratings.

1.2 REFERENCES

- A. American Institute of Steel Construction (AISC):
 - 1. Specification for the Design, Fabrication and Erection of Structural Steel for Buildings.
 - 2. AISC - Code of Standard Practice - Manual of Steel Construction - Allowable Stress Design (ASD).
 - 3. AISC - Section 10 - Architecturally Exposed Structural Steel.
- B. American Society for Testing and Materials (ASTM):
 - 1. ASTM A36/A36M - Specification for Structural Steel.
 - 2. ASTM A53 - Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
 - 3. ASTM A108 - Specification for Steel Bars, Carbon, Cold-Finished, Standard Quality.
 - 4. ASTM A123 - Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
 - 5. ASTM A153 - Specification for Zinc Coating (Hot Dip) on Iron and Steel Hardware.
 - 6. ASTM A242/A242M - Specification for High-Strength Low-Alloy Structural Steel.
 - 7. ASTM A 307 - Specification for Carbon Steel Bolts and Studs, 60,000 psi Tensile Strength.
 - 8. ASTM A 325 - Specification for Structural Bolts, Heat Treated, 120/105 ksi Minimum Tensile Strength.
 - 9. ASTM A449 - Specification for Quenched and Tempered Steel Bolts and Studs.
 - 10. ASTM A490 - Specification for Heat-Treated Steel Structural 150 ksi Minimum Tensile Strength.
 - 11. ASTM A 500 - Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.
 - 12. ASTM A 501 - Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing.
 - 13. ASTM A514/A514M - Specification for High-Yield Strength, Quenched and Tempered Alloy Steel Plate, Suitable for Welding.
 - 14. ASTM A529/A529M - Specification for High-Strength Carbon-Manganese Steel of Structural Quality.
 - 15. ASTM A563 - Specification for Carbon and Alloy Steel Nuts.
 - 16. ASTM A568/A568M - Specification for Steel, Sheet, Carbon and High-Strength, Low-Alloy, Hot-Rolled and Cold-Rolled, General Requirements for.
 - 17. ASTM A572/A572M - Specification for High-Strength Low-Alloy Columbium-Vanadium Structural Steel.

- C. American Welding Society (AWS):
 - 1. AWS D1.1 - Structural Welding Code.
 - 2. AWS A2.4 - Symbols for Welding, Brazing, and Nondestructive Examination.
- D. Factory Mutual (FM):
 - 1. FM - Roof Assembly Classifications.
- E. Underwriters Laboratories, Inc. (UL):
 - 1. UL - Fire Resistance Directory.
- F. Steel Structures Painting Council (SSPC):
 - 1. SSPC - Painting Manual.
 - 2. SSPC-Paint 20 Type II - Zinc Rich Primers - Organic.
 - 3. SSPC-Paint 22 - Epoxy Polyamide Paints.
 - 4. SSPC-Paint 25 - Red Iron Oxide, Zinc Oxide, Raw Linseed Oil, and Alkyd Primer.
 - 5. SSPC-SP 2 - Hand Tool Cleaning.
 - 6. SSPC-SP 6 - Commercial Blast Cleaning.

1.3 SUBMITTALS

- A. Section 013300 - Submittal Procedures: Procedures for submittals.
 - 1. Shop Drawings:
 - a. Indicate profiles, sizes, spacing, locations of structural members, openings, attachments, and fasteners.
 - b. Connections.
 - c. Cambers and loads.
 - d. Indicate welded connections with AWS A2.0 welding symbols. Indicate net weld lengths.
 - 2. Assurance/Control Submittals:
 - a. Erection Procedure: Submit descriptive data to illustrate structural erection procedure including sequence of erection and temporary staying and bracing.
 - b. Field Welding Equipment: Submit descriptive data for field welding equipment including type, voltage, and amperage.
 - c. Test Reports: Submit the following reports directly to Contracting Officer from Testing Laboratory, with copy to Contractor. Prepare reports in conformance with Section 014000 - Quality Requirements:
 - 1) Welding inspection.
 - 2) Bolted connection inspection.
 - d. Certificates: Certify welders employed on Work, verifying AWS qualification within previous 12 months.
 - e. Qualification Documentation: Submit documentation of fabricator and erector experience indicating compliance with specified qualification requirements.

1.4 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Fabricator: Company specializing in performing the work of this section with minimum 5 years documented experience.
 - 2. Erector:
 - a. A company specialized in performing the work of this section with a minimum of 5 years documented experience.
 - b. A qualified company that participates in the AISC Quality Certification Program and is designated an AISC-Certified Erector, Category CASE or CSE.

3. Qualifications for Welding Work: Qualify welding operators in accordance with AWS Standard Qualification Procedures. Provide certification that welders employed in work have satisfactorily passed AWS qualification tests within previous 12 months. If rectification of welders is required, provide without additional cost to Owner.
- B. Fabricate structural steel members in accordance with AISC Code of Standard Practice.
 - C. Perform Work in accordance with AISC Section 10.
 - D. Design connections not detailed on the Drawings under direct supervision of a Professional Structural Engineer experienced in design of this work and licensed in State where Project is located.
 - E. Survey: Employ Professional Engineer registered in State in which Project is located, experienced in survey work, to establish permanent bench marks as shown and as necessary for accurate erection of structural steel. Check elevations of concrete and masonry bearing surfaces, and locations of anchor bolts and similar devices, before erection work proceeds, and report discrepancies to Owner. Do not proceed with erection until corrections have been made, or until compensating adjustments to structural steel work have been agreed upon with Owner.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Section 016000 - Product Requirements: Transport, handle, store, and protect Products.
- B. Store steel above ground on platforms, skids, or other supports.
- C. Protect steel from corrosion.
- D. Store packaged materials in their original, unbroken packages or containers.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Structural Steel Shapes, Plates and Bars: ASTM A 36.
- B. Structural Tubing: ASTM A 500, Grade B.
- C. Bolts, Nuts, and Washers: AISC Specification Section 1.4.4.
 1. Unfinished Bolts: ASTM A 307.
 2. High Strength Bolts: ASTM A 325 or A 490.
 3. Anchor Bolts and Nuts: ASTM A 307 Grade A.
 4. High Strength Anchor Bolts: ASTM A 490.
- D. Welding Materials: AWS D1.1; type required for materials being welded or as indicated on Drawings.
- E. Rivets: AISC Specification Section 1.4.3.
 1. Steel Structural Rivets: ASTM A 502.
- F. Shop and Touch-Up Primer: AISC Specification Section 1-24.

2.2 FABRICATION

- A. Fabricate structural steel members in accordance with AISC Code Section 6 and AISC Specification.
- B. Connections not detailed on Drawings: Engineer by fabricator, which is subject to review.
- C. Fabricator's Responsibility:
 - 1. Errors of detailing, fabrications, and for correct fitting of structural steel members.
 - 2. Do not splice structural steel members. Members having splice not indicated on Drawings will be rejected.
- D. Continuously seal joined members by continuous welds. Grind exposed welds smooth.
- E. Fabricate connections for bolt, nut, and washer connectors.
- F. Develop required camber for members.

2.3 FINISH

- A. Clean, prepare, and shop prime structural steel members in accordance with SSPC - Painting Manual. Do not paint surfaces in contact with concrete, or surfaces specified to be galvanized.
- B. Shop prime structural steel members. Do not prime surfaces that will be field welded, in contact with concrete, and high strength bolted.

2.4 SOURCE QUALITY CONTROL AND TESTS

- A. Provide shop testing of structural steel sections.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Section 017300 - Execution: Verification of existing conditions before starting work.
- B. Verification of Conditions: Verify that field measurements, surfaces, substrates and conditions are as required, and ready to receive Work.
- C. Report in writing to Contracting Officer prevailing conditions that will adversely affect satisfactory execution of the Work of this Section. Do not proceed with Work until unsatisfactory conditions have been corrected.
- D. By beginning Work, Contractor accepts conditions and assumes responsibility for correcting unsuitable conditions encountered at no additional cost to the United States Postal Service.

3.2 PREPARATION

- A. Supply items required to be cast into concrete or embedded in masonry with setting diagrams to appropriate Sections.

3.3 ERECTION

- A. Erect structural steel in accordance with AISC Code, Section 7, and AISC Specification Section 1.25 except as specified herein.
- B. Make provision for erection loads, and for sufficient temporary bracing to maintain structure safe, plumb, and in true alignment until completion of erection and installation of permanent bracing.
- C. Do not field cut or alter structural members without approval of Contracting Officer.
- D. Field weld components indicated on Drawings.
- E. Field connect members with threaded fasteners; torque to required resistance.
- F. After erection, prime welds, abrasions, and surfaces not shop painted that are to receive finish painting, except surfaces to be in contact with concrete. Use a primer consistent with shop coat.
- G. Anchor Bolts: Install anchor bolts and other connectors required for securing structural steel to foundations and other in-place work. Furnish templates and other devices as necessary for presetting bolts and other anchors to accurate locations.
- H. Setting Bases and Bearing Plates: Clean concrete and masonry bearing surfaces of bond-reducing materials and roughen to improve bond to surfaces. Clean bottom surfaces of base and bearing plates.
 - 1. Set loose and attached base plates and bearing plates for structural members on steel wedges or other adjusting devices.
 - 2. Tighten anchor bolts after the supported members have been positioned and plumbed. Do not remove wedges or shims, but if protruding, cut off flush with edge of base or bearing plate prior to grouting.
 - 3. Grout solidly between bearing surfaces and bases of plates immediately after erecting member and before additional load is placed on member. Finish exposed surfaces, protect installed materials, and allow to cure. For proprietary grout materials, comply with manufacturer's installation instructions.
 - 4. Slide bearings: Permanently affixed to member and support, respectively, by welding or bolting as indicated. Align and level member faces to maintain full contact between surfaces before completing installation.
- I. High-strength Bolting: Comply with specifications for Structural Joints using ASTM A 325 or A 490 Bolts.
- J. Erection Bolts:
 - 1. Comply with ASTM A 307.
 - 2. On exposed welded construction, remove erection bolts, fill holes with plug welds, and grind smooth at exposed surfaces.
- K. Touch-up Painting: Immediately after erection, clean exposed field welds, bolted connections, and abraded areas of shop paint. Apply paint to exposed areas with same material as used for shop painting. Apply by brush or spray to provide a minimum dry film thickness of 2.0 mils.

3.4 CONSTRUCTION

- A. Site Tolerances:
 - 1. Maximum Variation From Plumb: 1/4 inch.
 - 2. Maximum Offset From True Alignment: 1/4 inch.

3.5 FIELD QUALITY CONTROL

- A. Section 014000 - Quality Requirements: Field testing and inspection.
- B. Quality Assurance Program:
 - 1. AISC Code Section 8 and AISC Specification Section 1.26.
 - 2. AISC Quality Criteria and Inspection Standards, except as specified herein.
- C. Welding:
 - 1. AWS D1.1 Section 6.
 - 2. Inspectors: AWS Certified in accordance with AWS QCI, Standard for Qualifications and Certification of Welding Inspectors.

END OF SECTION

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SECTION 055213

PIPE AND TUBE RAILINGS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Steel pipe handrails.
 - 2. Access ladders.
 - 3. Access stairs.
- B. Related Documents: The Contract Documents, as defined in Section 011000 - Summary of Work, apply to the Work of this Section. Additional requirements and information necessary to complete the Work of this Section may be found in other Documents.
- C. Related Sections:
 - 1. Section 099100 - Painting: Field paint finish.

1.2 REFERENCES

- A. American Society for Testing and Materials (ASTM):
 - 1. ASTM A 53 - Specification for Hot-Dipped, Zinc-coated Welded and Seamless Steel Pipe.
 - 2. ASTM 123 - Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
 - 3. ASTM E 894 - Test Method for Anchorage of Permanent Metal Railing Systems and Rails for Buildings.
 - 4. ASTM E 935 - Test Methods for Performance of Permanent Metal Railing Systems and Rails for Buildings.
 - 5. ASTM E 985 - Permanent Metal Railing Systems and Rails for Buildings.
- B. Steel Structures Painting council (SSPC):
 - 1. SSPC Paint 15 - Type 1, Red Oxide.
 - 2. SSPC Paint 20 - Type 1 Inorganic Zinc Rich.

1.3 SYSTEM DESCRIPTION

- A. Contractor's/Fabricator's Design Requirements:
 - 1. Design, engineer, fabricate and install handrails, railing systems, platform stairs, and ladders to comply with requirements of ASTM E 985 for structural performance based on testing performed in accordance with ASTM E 894 and E 935.
 - 2. Railing assembly, wall rails, and attachments to comply with local code requirements and to resist minimum lateral force according to IBC or more stringent local building code at any point without damage or permanent set.

1.4 SUBMITTALS

- A. Section 013300 - Submittal Procedures: Procedures for submittals.

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1. Shop Drawings: Indicate profiles, sizes, connection attachments, anchorage, size and type of fasteners, and accessories.
2. Assurance/Control Submittals:
 - a. Certificates: Manufacturer's certificate that Products meet or exceed specified requirements.
3. Stamped calculations of a structural engineer indicates the shop drawings meet code requirements

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Section 016000 - Product Requirements: Transport, handle, store, and protect Products.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Pipe: ASTM A 53, Grade B Schedule 80.
- B. Rails and Posts: Steel pipe; with welded joints, of sizes and shapes as indicated on Drawings.
- C. Fittings: Elbows, T-shapes, wall brackets, escutcheons; machined steel.
- D. Splice Connectors: Steel threaded collars.
- E. Refer to 055313 – Bar Gratings for platform and stair walking surfaces

2.2 FABRICATION

- A. Fit and shop assemble sections in largest practical sizes, for delivery to site and installation.
- B. Supply components required for secure anchorage of handrails and railings.
- C. Fully weld joints. Grind exposed welds smooth and flush with adjacent surfaces.
- D. Wake exposed joint butt tight, flush, and hairline.
- E. Accurately form components required for anchorage of railings to each other and to building structure.

2.3 FINISH

- A. At Building Exterior:
 1. Galvanizing: ASTM A123; provide minimum 2.0 ounces per square foot.
 2. Touch-Up Primer for Galvanized Surfaces: SSPC 20 Type I Inorganic zinc rich.
- B. Prime and paint as specified in Section 099100 where indicated on the Drawings.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Section 017300 - Execution: Verification of existing conditions before starting work.
- B. Verification of Conditions: Verify that field measurements, surfaces, substrates and conditions are as required, and ready to receive Work.
 - 1. Verify field dimensions prior to shop fabrication.
- C. Report in writing to Contracting Officer prevailing conditions that will adversely affect satisfactory execution of the Work of this Section. Do not proceed with Work until unsatisfactory conditions have been corrected.
- D. By beginning Work, Contractor accepts conditions and assumes responsibility for correcting unsuitable conditions encountered at no additional cost to the United States Postal Service.

3.2 PREPARATION

NOT USED

3.3 INSTALLATION

- A. Install in accordance with manufacturer's published instructions.
- B. Install components plumb and level, accurately fitted, free from distortion or defects.
- C. Anchor railings to structure as indicated on the drawings.
- D. Field weld connections as indicated on Drawings. Touch-up welds with primer. Grind welds smooth.

3.4 CONSTRUCTION

- A. Site Tolerances:
 - 1. Maximum Variation From Plumb: 1/4 inch.
 - 2. Maximum Offset From True Alignment: 1/4 inch.
 - 3. Maximum Out-of-Position: 1/4 inch.

3.5 FIELD QUALITY CONTROL

- A. Section 014000 - Quality Requirements: Field testing and inspection.
- B. Inspect railings and handrail installation and attachment to structure.
- C. Inspect paint finish applied to surfaces.

END OF SECTION

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SECTION 055313

BAR GRATINGS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Metal bar gratings.

1.2 ACTION SUBMITTALS

A. Product Data:

1. Clips and anchorage devices for gratings.

B. Shop Drawings:

1. Include plans, sections, and attachment details.
2. Signed and sealed by the qualified professional engineer responsible for their preparation.

C. Delegated Design Submittals: For gratings, including manufacturers' published load tables.

1.3 INFORMATIONAL SUBMITTALS

A. Coordination Drawings: Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry.

B. Certificates:

1. Welding certificates.

C. Delegated design engineer qualifications.

1.4 QUALITY ASSURANCE

A. Qualifications:

1. Delegated Design Engineer: A professional engineer who is legally qualified to practice in the state where Project is located and who is experienced in providing engineering services of the type indicated.
2. Welding Qualifications: Qualify procedures and personnel in accordance with the following welding codes:
 - a. AWS D1.1/D1.1M.
 - b. AWS D1.3/D1.3M.

1.5 FIELD CONDITIONS

- A. Field Measurements: Verify actual locations of walls and other construction contiguous with gratings by field measurements before fabrication.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - 1. All American Grating.
 - 2. BarnettBates Corporation.
 - 3. Borden Metal Products (Canada) Limited.
 - 4. Fisher & Ludlow; a NUCOR Company.
 - 5. Harsco Industrial IKG, a division of Harsco Corporation.
 - 6. MLP Steel Company; Laurel Steel Products Division.
 - 7. Neenah Foundry Company.
 - 8. Seidelhuber Metal Products; Brodhead Steel.

2.2 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Gratings to withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:
 - 1. Walkways and Elevated Platforms Used as Exits: Uniform load of 100 lbf/sq. ft. (4.79 kN/sq. m).
 - 2. Limit deflection to L/360 or 1/4 inch (6.4 mm), whichever is less.

2.3 METAL BAR GRATINGS

- A. Metal Bar Grating Standards: Comply with NAAMM MBG 531 and NAAMM MBG 532.
- B. Welded Steel Grating:
 - 1. Bearing Bar Spacing: 11/16 inch (17 mm), 15/16 inch (24 mm) o.c., or As required to comply with structural performance requirements.
 - 2. Bearing Bar Depth: 1-1/4 inch.
 - 3. Bearing Bar Thickness: 3/16 inch (4.8 mm), 1/4 inch (6.4 mm), or As required to comply with structural performance requirements.
 - 4. Crossbar Spacing: 4 inches (102 mm) o.c.
 - 5. Traffic Surface: Serrated.
 - 6. Steel Finish: Hot-dip galvanized with a coating weight of not less than 1.8 oz./sq. ft. (550 g/sq. m) of coated surface.

2.4 FASTENERS

- A. General: Unless otherwise indicated, provide Type 304 stainless steel fasteners for exterior use and zinc-plated fasteners with coating complying with ASTM B633 or ASTM F1941/F1941M, Class Fe/Zn 5, at exterior walls. Select fasteners for type, grade, and class required.
 - 1. Provide stainless steel fasteners for fastening aluminum.
 - 2. Provide stainless steel fasteners for fastening stainless steel.

- B. Stainless Steel Bolts and Nuts: Regular hexagon-head annealed stainless steel bolts, nuts, and, where indicated, flat washers; ASTM F593 (ISO 3506-1) for bolts and ASTM F594 (ASTM F836M) for nuts, Alloy Group 1 (A1).

2.5 MISCELLANEOUS MATERIALS

- A. Galvanizing Repair Paint: High-zinc-dust-content paint complying with SSPC-Paint 20 and compatible with paints specified to be used over it.

2.6 FERROUS METALS

- A. Steel Plates, Shapes, and Bars: ASTM A36/A36M.
- B. Steel Bars for Bar Gratings: ASTM A36/A36M or steel strip, ASTM A1011/A1011M or ASTM A1018/A1018M.
- C. Wire Rod for Bar Grating Crossbars: ASTM A510/A510M.
- D. Uncoated Steel Sheet: ASTM A1011/A1011M, structural steel, Grade 30 (Grade 205).
- E. Galvanized-Steel Sheet: ASTM A653/A653M, structural quality, Grade 33 (Grade 230), with G90 (Z275) coating.
- F. Stainless Steel Sheet, Strip, Plate, and Flat Bars: ASTM A240/A240M, Type 304.
- G. Stainless Steel Bars and Shapes: ASTM A276/A276M, Type 304.

2.7 FABRICATION

- A. Shop Assembly: Fabricate grating sections in shop to greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Use connections that maintain structural value of joined pieces. Clearly mark units for reassembly and coordinated installation.
- B. Cut, drill, and punch material cleanly and accurately. Remove burrs and ease edges to a radius of approximately 1/32 inch (1 mm) unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.
- C. Form from materials of size, thickness, and shapes indicated, but not less than that needed to support indicated loads.
- D. Fit exposed connections accurately together to form hairline joints.
- E. Welding: Comply with AWS recommendations and the following:
 - 1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 - 2. Obtain fusion without undercut or overlap.
 - 3. Remove welding flux immediately.
- F. Provide for anchorage of type indicated; coordinate with supporting structure. Fabricate and space the anchoring devices to secure gratings, frames, and supports rigidly in place and to support indicated loads.

1. Fabricate toeplates to fit grating units and weld to units in shop unless otherwise indicated.
 2. Toeplate Height: 4 inches (100 mm) unless otherwise indicated.
 3. Provide no fewer than four saddle clips for each grating section containing rectangular bearing bars 3/16 inch (4.8 mm) or less in thickness and spaced 15/16 inch (24 mm) or more o.c., with each clip designed and fabricated to fit over two bearing bars.
 4. Furnish threaded bolts with nuts and washers for securing grating to supports.
 5. Furnish self-drilling fasteners with washers for securing grating to supports.
- G. Fabricate cutouts in grating sections for penetrations indicated. Arrange cutouts to permit grating removal without disturbing items penetrating gratings.
1. Edge-band openings in grating that interrupt four or more bearing bars with bars of same size and material as bearing bars.
- H. Do not notch bearing bars at supports to maintain elevation.

2.8 STEEL FINISHES

- A. Finish gratings, frames, and supports after assembly.
- B. Galvanizing: Hot-dip galvanize items as indicated to comply with ASTM A153/A153M for steel and iron hardware and with ASTM A123/A123M for other steel and iron products.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Fastening to In-Place Construction: Provide anchorage devices and fasteners where necessary for securing gratings to in-place construction. Include threaded fasteners for concrete and masonry inserts, through-bolts, lag bolts, and other connectors.
- B. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installing gratings. Set units accurately in location, alignment, and elevation; measured from established lines and levels and free of rack.
- C. Fit exposed connections accurately together to form hairline joints.
- D. Attach toeplates to gratings by welding.
- E. Field Welding: Comply with AWS recommendations and the following:
1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 2. Obtain fusion without undercut or overlap.
 3. Remove welding flux immediately.

3.2 INSTALLATION OF METAL BAR GRATINGS

- A. Install gratings to comply with recommendations of referenced metal bar grating standards that apply to grating types and bar sizes indicated, including installation clearances and standard anchoring details.

- B. Attach removable units to supporting members with type and size of clips and fasteners indicated or, if not indicated, as recommended by grating manufacturer for type of installation conditions shown.
- C. All grating shall be installed with the same orientation except at stairs where the bars of the grating shall be parallel with the nose of the stairs.

3.3 REPAIR

- A. Repair Painting:
 - 1. Wire brush and clean rust spots, welds, and abraded areas on prime-painted gratings immediately after installation, and apply repair paint with same material as used for shop painting to comply with SSPC-PA 1 requirements for touching up shop-painted surfaces.
 - a. Apply by brush or spray to provide a minimum 2.0-mil (0.05-mm) dry film thickness.
- B. Repair of Galvanized Surfaces: Clean field welds, bolted connections, and abraded areas and repair galvanizing to comply with ASTM A780/A780M.

END OF SECTION 055313

SECTION 061000
ROUGH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Concealed blocking behind wall mounted items and in roofing.
 - 2. Wood treatment.
- B. Related Documents: The Contract Documents, as defined in Section 011000 - Summary of Work, apply to the Work of this Section. Additional requirements and information necessary to complete the Work of this Section may be found in other documents.

1.2 REFERENCES

- A. American Lumber Standards Committee (ALSC):
 - 1. Softwood Lumber Standards.
- B. American Plywood Association (APA):
 - 1. Grades and Standards.
- C. American Society for Testing and Materials (ASTM):
 - 1. ASTM A307 - Specification for Carbon Steel Bolts and Studs, 60,000 psi Tensile Strength.
 - 2. ASTM E84 - Test Method for Surface Burning Characteristics of Building Materials.
- D. American Wood Preservers Association(AWPA):
 - 1. AWPA - C1 - All Timber Products - Preservative Treatment by Pressure Process.
 - 2. AWPA - C15 - Wood for Commercial-Residential Construction Preservative Treatment by Pressure Processes.
 - 3. AWPA - C20 - Structural Lumber - Fire-Retardant Treatment by Pressure Processes.
 - 4. AWPA - C27 - Plywood - Fire-Retardant Treatment by Pressure Processes.
 - 5. AWPA - P5 - Waterborne Preservatives.
- E. Underwriters' Laboratories, Inc. (UL):
 - 1. UL FR S - Fire Rated Treated Wood with Flame Spread and Smoke Developed Ratings of 25 or less in accordance with ASTM E84.
 - 2. UL 723 - Test for Surface Burning Characteristics of Building Materials.

1.3 SUBMITTALS

- A. Section 013300 - Submittal Procedures: Procedures for submittals.
 - 1. Assurance/Control Submittals:
 - a. Certificates:
 - 1) Pressure Treated Wood: Certification from treating plant stating chemicals and process used and net amount of preservative retained are in conformance with specified standards.
 - 2) Preservative Treated Wood: Certification for water-borne preservative that moisture content was reduced to 19 percent maximum, after treatment.

- 3) Fire-Retardant Treated Wood: Certification from treating plant stating that fire-retardant treatment materials comply with governing code, ordinances and requirements of local authority having jurisdiction, and treatment will not bleed through finished surfaces.

1.4 QUALITY ASSURANCE

- A. Perform Work in accordance with the following agencies:
 1. Lumber Grading Agency: Certified by ALSC.
 2. Plywood Grading Agency: Certified by APA.
- B. Regulatory Requirements: Conform to applicable codes for fire-retardant treatment of wood surfaces for flame/smoke ratings.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Section 016000 - Product Requirements: Transport, handle, store, and protect products.
 1. Inspect wood materials for conformance to specified grades, species, and treatment at time of delivery to Project Site.
 2. Reject and return unsatisfactory wood materials.
- B. Provide facilities for handling and storage of materials to prevent damage to edges, ends and surfaces.
- C. Keep materials dry. Stack materials off ground minimum 12 inches or, if on concrete slab-on-grade, minimum 1-1/2 inches, fully protected from weather. Provide for air circulation within and around stacks and under temporary coverings.
- D. For materials pressure treated with waterborne chemicals, place spacers between each bundle to provide air circulation.

1.6 ENVIRONMENTAL REQUIREMENTS

- A. Environmental Impact:
 1. Formaldehyde: Products containing urea-formaldehyde will not be permitted.
 2. Wood pressure treatment products: Products containing chromium will not be permitted. Products containing arsenic will not be permitted.
 3. Use exterior plywood only. Interior plywood is not permitted.
 4. All wood products to be FSC Certified.

PART 2 - PRODUCTS

2.1 LUMBER MATERIALS

- A. Lumber, finished 4 sides, 15 percent maximum moisture content. Each piece of lumber to be factory marked with type, grade, mill and grading agency.
 1. Light framing: Construction grade Douglas fir or southern pine, appearance grade where exposed.
 2. Structural framing and timbers: No. 2 grade Douglas Fir, Southern Pine, or Spruce, appearance grade where exposed.
 3. Boards: Construction grade.

2.2 NAILERS, BLOCKING, FURRING AND SLEEPERS

- A. Wood for nailers, blocking, furring and sleepers: Construction grade, finished 4 sides, 15 percent maximum moisture content. Pressure preservative treat items in contact with roofing, flashing, waterproofing, masonry, concrete or the ground.

2.3 SHEATHING MATERIALS

- A. Plywood, APA rated for use and exposure:
 - 1. Exterior wall sheathing: APA C-D rated 32/16 Sheathing, 1/2 inch minimal thickness, exterior type.
 - 2. Roof sheathing: APA rated 48/24 sheathing, 5/8 inch minimum thickness, exterior type.
 - 3. Backing panels: APA C-D plugged, 3/4 inch thick, exterior type.
 - 4. Security Ceiling: APA rated 48/24 sheathing, 5/8 inch minimum thickness, tongue and groove, exterior type.

2.4 BUILDING PAPER

- A. Asphalt saturated felt, non-perforated.

2.5 FASTENERS

- A. Fasteners: Provide manufacturers recommended power tools for each type of fastener.
 - 1. Bolts, Nuts, Washers, Lag Screws, and Wood Screws: ASTM A307, Medium carbon steel; size and type to suit application; galvanized for treated wood; plain finish for other interior locations, of size and type to suit application, unless otherwise noted.
 - 2. Expansion Shield Fasteners: For anchorage of non-structural items to solid masonry and concrete.
 - 3. Powder or Pneumatically Activated Fasteners: For anchorage of non-structural items to steel.
 - 4. Fasteners for Wood and Plywood (over 1/2 inch) to Light Gage Metal Framing and Metal Deck (up to 1/8 inch thick):
 - a. Hilti PWH #3 with wings.
 - b. ITW TEKS/4 with wings.
 - c. Substitutions: Permitted
 - 5. Fasteners for Wood and Plywood (up to 2 inches thick) to Metal (from 1/8 inch to 1/4 inch thick):
 - a. Hilti PFH #4 with wings.
 - b. ITW TEKS/4 with wings.
 - c. Substitutions: Permitted
 - 6. Fasteners for Non-Structural Wood Members to Masonry: 1/4 inch diameter x 3-1/4 inch with phillips flat head.
 - a. Tapcon masonry anchors, by ITW Buildex.
 - b. Kwik-Con II fastener, by Hilti.
 - c. Substitutions: Permitted
 - 7. Fasteners for preservative treated lumber must be hot dipped galvanized, meeting ASTM-A153, Type 304 or 316 stainless steel, or zinc-polymer coated.

2.6 WOOD TREATMENT

- A. Preservative Pressure Treated Lumber, Alkaline Copper Quat (ACQ): Type B, Ammoniacal Copper Quat or Type D, Amine Copper Quat.

1. Manufacturers:
 - a. Chemical Specialties, Incorporated, Charlotte, NC (800) 421-8661.
 - b. Arch Wood Protection, Inc., Smyrna, GA (770) 801-6600
 - c. Kippers Performance Chemicals., Griffin, GA, (770) 233-4200
 2. Products:
 - a. CSI: "Preserve".
 - b. Arch Wood: "Natural Select"
 - c. Koppers: "Nature Wood"
 3. Impregnate lumber with preservative treatment conforming to AWP Standard C1 and P5. Apply the preservative in a closed cylinder by pressure process in accordance with AWP Standard C15.
 4. Retention of preservative:
 - a. Moderate service conditions (weather exposure): 0.25 pounds per cubic foot (oxide basis).
 - b. Severe conditions (constant contact with ground or water): 0.40 pounds per cubic foot (oxide basis).
 5. Remove excess moisture where shrinkage is a serious fault or where treated lumber will be in contact with plaster, or stucco, and where water-borne treated lumber is to be painted or stained.
 6. Lumber shall be dried to 15 to 19 percent moisture content after treatment, and material to be painted or stained shall have knots and pitch streaks sealed as with untreated wood.
 7. Liberally brush freshly cut surfaces, bolt holes and machined areas with the same preservative in accordance with AWP Standard M4.
 8. Treatment material shall provide protection against termites and fungal decay and shall be registered for use as a wood preservative by the U. S. Environmental Protection Agency.
- B. Fire Retardant Treatment:
1. Manufacturers:
 - a. Chemical Specialties, Incorporated, Charlotte, NC (800) 421-8661.
 - b. Hickson Corporation, Smyrna, GA: (770) 801-6600.
 - c. Hoover Treated Wood Products, Incorporated, Thomson, GA: (800) 832-9663.
 2. Products:
 - a. CSI: "D-Blaze".
 - b. Hickson: "Dricon".
 - c. Hoover: "Pyro-Guard".
 3. Lumber and plywood shall be treated as follows:
 - a. Each piece of treated material shall bear the UL FR-S rating (flamespread and smoke developed less than 25) indicating compliance with an extended 30 minute tunnel test in accordance with ASTM E84 or UL 723.
 - b. After treatment, all lumber shall be dried to an average moisture content of 19 percent or less.
 - c. After treatment, all plywood, shall be dried to an average moisture content of 15 percent or less.
 - d. All treated material shall meet interior Type A requirements in AWP standard C-20 for lumber and C-27 for plywood.
 - e. Chemicals used to treat material shall be free of halogens, sulfates and formaldehyde.
- C. Wood Requiring Treatment:
1. Lumber, Preservative Treated: Nailers, blocking, stripping, and similar items in conjunction with roofing, flashing, and other construction. Sills, blocking, furring, stripping, and similar items in contact with masonry or concrete.
 2. Lumber, Fire Retardant Treated: Interior framing, furring, blocking, nailers, and miscellaneous exposed wood. Do not treat furring in contact with masonry or concrete.
 3. Interior Plywood, Fire Retardant Treated: Exterior type plywood backing for electrical and telephone equipment.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Section 017300 - Execution: Verification of existing conditions before starting work.
- B. Verification of Conditions: Verify that field measurements, surfaces, substrates and conditions are as required, and ready to receive Work.
 - 1. Verify that spacing, direction and details of supports are correct to accommodate installation of blocking, backing, stripping, furring and nailing strips.
- C. Report in writing to Contracting Officer prevailing conditions that will adversely affect satisfactory execution of the Work of this Section. Do not proceed with Work until unsatisfactory conditions have been corrected.
- D. By beginning Work, Contractor accepts conditions and assumes responsibility for correcting unsuitable conditions encountered at no additional cost to the United States Postal Service.

3.2 INSTALLATION - FRAMING

- A. Make provisions for erection loads, and for sufficient temporary bracing to maintain structure safe, plumb, and in true alignment until completion of erection and installation of permanent bracing.
- B. Place horizontal members, crown side up.
- C. Construct load bearing framing and curb members full length without splices.
- D. Install miscellaneous blocking, nailing strips and framing where required as backing for attachment of wall mounted fixtures, cabinetwork, and other items, and as detailed on Drawings. Coordinate to allow proper attachment of work of other Sections.
 - 1. Secure in place using fasteners specified. Use only recommended power tools for placement of fasteners.
 - 2. Recess heads of fasteners below surface of wood members.
- E. Secure in place with appropriate fasteners. Use fasteners of correct size that will not penetrate members where opposite side will be exposed to view or require finishing. Do not split wood with fasteners; set panel products to allow expansion at joints.
- F. Construct members of continuous pieces of longest possible lengths.

3.3 INSTALLATION - PLYWOOD

- A. Secure roof sheathing with longer edge perpendicular to framing members and with ends staggered and sheet ends over bearing.
- B. Secure wall sheathing with long dimension perpendicular to wall studs, with ends over firm bearing and staggered.
- C. Install telephone and electrical panel back boards with plywood sheathing material where required. Size the back board by 12 inches (25 cm) beyond size of electrical panel.

3.4 INSTALLATION - AIR INFILTRATION SEAL

NOT USED

3.5 SITE TREATMENT OF WOOD MATERIALS

- A. Apply preservative treatment in accordance with manufacturer's published instructions.
- B. Brush apply two coats of preservative treatment on wood in contact with cementitious materials and roofing and related metal flashings. Treat site-sawn cuts.
- C. Allow preservative to dry prior to erecting members.

3.6 CONSTRUCTION

- A. Site Tolerances:
 - 1. Framing Members: 1/4 inch from true position, maximum.

3.7 FIELD QUALITY CONTROL

- A. Section 014000 - Quality Requirements: Field inspection.
- B. Framing Inspection:
 - 1. Inspect wood framing installation and connections at completion of each phase of wood construction for correct installation, nailing, connections, and fasteners.
 - 2. Inspect and verify that types and spacing of fasteners are installed in locations specified or indicated on Drawings.
 - 3. Inspect types, locations, and fasteners for structural metal framing connectors.
 - 4. Inspect types, locations, and connections of hold-down anchors.
 - 5. Inspect wood to steel beam connections.

3.8 SCHEDULE - NAILING

CONNECTION	NAILING
Joist to sill or girder, toenail	3 - 8d
Bridging to joist, toenail each end	2 - 8d
Bottom Plate to joist or blocking, face nail	16d at 16 inches o.c.
Top plate to stud, end nail	2-16d
Stud to bottom plate	4-8d, toenail or 2-16d, end nail
Double studs, face nail	16d at 24 inches o.c.
Double top plates, face nail	16d at 16 inches o.c.
Top plates, laps and intersections, face nail	2 - 16d
Continuous header, two pieces	16d at 16 inches o.c. along each edge
Ceiling joists to plate, toenail	3 - 8d
Continuous header to stud, toenail	4 - 8d
Ceiling joists, laps over partitions, face nail	3 - 16d
Ceiling joists to parallel rafters, face nail	3 - 16d
Rafter to plate, toenail	3 - 16d
Built-up corner studs	16d at 24 inches o.c.

Switchgear Replacement
Hartford, CT - P&DC
B43529/18034.00

061000- 6

Built-up beams

20d at 32 inches o.c. at
top and bottom staggered
2 - 20d at ends and at each splice

END OF SECTION

USPS CSF Specifications issued: 10/1/2019
Last revised: 4/12/2011

SECTION 075419

POLYVINYL-CHLORIDE MEMBRANE ROOFING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Preparation of roof deck to receive roofing membrane.
2. Mechanically fastened Roof insulation and Glass mat gypsum board.
3. Fully Adhered PVC membrane roofing system.
4. Flashing membrane.
5. Accessories.
6. Warranty

B. Related Documents:

1. The Contract Documents, as defined in Section 011000- Summary of Work, apply to the Work of this Section.
2. Memorandum of Understanding (MOU) between the United States Environmental Protection Agency's ENERGY STAR® Roof Products Program and Roofing Material Manufacturers.
3. Additional requirements and information necessary to complete the Work of this Section may be found in other documents.

C. Related Sections:

1. Section 061000 - Rough Carpentry: Wood blocking, curbs, and nailers.

1.2 REFERENCES

A. American Society for Testing and Materials (ASTM):

1. ASTM C208 - Specification for Cellulosic Fiber Insulating Board.
2. ASTM C1177 - Standard Specification for Glass Mat Gypsum Roof Board.
3. ASTM C1289 - Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board.
4. ASTM D570 - Test Method for Water Absorption of Plastics.
5. ASTM D638 - Test Method for Tensile Properties of Plastics.
6. ASTM D751 - Test Method for Coated Fabrics.
7. ASTM D1004 - Test Method for Initial Tear Resistance of Plastic Film and Sheeting.
8. ASTM D1079 - Terminology Relating to Roofing and Waterproofing.
9. ASTM D1204 - Test Method for Linear Dimensional Changes of Nonrigid Thermoplastic Sheeting or Film at Elevated Temperature.
10. ASTM D2136 - Test Method for Coated Fabrics – Low Temperature Bend Test.
11. ASTM D3045 - Practice for Heat Aging of Plastics Without Load.
12. ASTM D4434 - Specification for Poly(Vinyl Chloride) Sheet Roofing. (Most Recent Edition) (PVC only)
13. ASTM D6754 – Specification for KEE Based Sheet Roofing (Most Recent Edition)(KEE only)
14. ASTM D5602 - Test Method for Static Puncture Resistance of Roofing Membrane Samples.
15. ASTM D5635 - Test Method for Dynamic Puncture Resistance of Roofing Membrane Samples.
16. ASTM E84 - Test Method for Surface Burning Characteristics of Building Materials.
17. ASTM E96 - Test Methods for Water Vapor Transmission of Materials.
18. ASTM E108 - Test Methods for Fire Tests of Roof Coverings.
19. ASTM E903 - Standard Test Method for Solar Absorptance, Reflectance, and Transmission of Materials Using Integrating Spheres.

20. ASTM G21 - Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi (KEE only).
 21. ASTM G26 - Practice for Operating Light-Exposure Apparatus (Xenon-Arc Type) With and Without Water for Exposure of Nonmetallic Materials.
 22. ASTM G53 - Practice for Operating Light- and Water – Exposure Apparatus (Fluorescent UV/Condensation Type) for Exposure of Nonmetallic Materials.
- B. Factory Mutual Global (FMG):
1. FMG – RoofNav – Internet Based FM Roof Assembly Testing and Approvals Database
 2. FMG - Approval Guide, Building Materials
 3. FMG - Loss Prevention Data 1-28, Wind Loads to Roof Systems and Roof Deck Securement.
 4. FMG - Loss Prevention Data 1-29, Above Deck Roof Components (June 1996).
 5. FMG - Standard 4450, Class 1 Insulated Steel Deck Roofs.
 6. FMG - Standard 4470, Class 1 Roof Covers.
- C. Underwriters Laboratory (UL):
1. Class A rated roofing system
 2. Recycled Content Certification
 - a. Manufacturer's membrane product recycled content to be validated by UL Environmental (ULE)

1.3 SYSTEM DESCRIPTION

- A. ENERGY STAR® Compliant Fully Adhered PVC Membrane Roofing System on Factory Primed Glass Mat Gypsum Roof Board on overlayered insulation secured to metal deck.

1.4 SUBMITTALS

- A. Section 013300 - Submittal Procedures: Procedures for submittals
1. Product Data:
 - a. FM RoofNav Assembly Number certifying proposed roof system has been tested and approved by FMG for the specified FM1-90 rating.
 - b. Membrane materials, base flashing, vapor retarder, fastener & plate, adhesive materials, edge metal and insulation.
 - c. Adhered membrane adhesive and application rates for adhering membrane roof to the overlayered insulation system with coverboard. Membrane adhesive shall be installed in compliance with roof membrane system manufacturer's FM RoofNav assembly approval number and all of the manufacturer's instructions including cold weather installation instructions of the proposed shall be required for approval prior to job start.
 2. Shop Drawings: Indicate setting plan for insulation including fastener pattern, layout of roofing seams, direction of laps and base flashing details.
 3. Assurance/Control Submittals:
 - a. Certificates: Manufacturer is to certify that components and products meet or exceed specified standards and complies with referenced quality assurance standards in section 1.5 including the FM RoofNav assembly number.
 - b. Qualification Documentation: Manufacturer certification indicating roofing applicator qualifications complying with requirements specified in Paragraph entitled "Applicator Qualifications" of this Section.
 - c. Sample of specified Warranty
 - d. Manufacturer's certification letter acknowledging receipt of specifications, intent to issue continued warranty letter, and intent to perform field audits as outlined in 1.4.3.d.

- e. Manufacturer's Field Reports: Submit the following reports directly to Contracting Officer from Manufacturer's Roofing Quality Control Inspector, with copy to Contractor. Prepare reports in conformance with Section 014000 -Quality Requirements:
 - 1) Preparatory inspection.
 - 2) Initial inspection.
 - 3) Follow-up inspections.
 - 4) Final inspection.
- f. Written certification or product data sheet attesting that proposed roofing membrane meets the EPA ENERGY STAR® Roof Products Program specification for energy efficiency and that the manufacturer is listed as a Partner.

1.5 QUALITY ASSURANCE

- A. Applicator Qualifications: Company specializing in PVC membrane roof application with minimum of 5 years documented experience and that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product, and that is eligible to be included in the existing manufacturer's warranty.
- B. Single Source Responsibility: Roofing system materials and components shall be supplied and warranted by membrane manufacturer for specified roofing system and shall be in compliance with all applicable regulatory requirements.
- C. FMG Listing: Provide roofing membrane, base flashings, and component materials that comply with requirements in FMG 4450 and FMG 4470 as part of a membrane roofing system and that are listed in the most recent FMG "RoofNav" on-line directory or FMG's "Approval Guide" for Class 1 or noncombustible construction, as applicable. Identify materials with FMG markings.
 - 1. Fire/Windstorm Classification: Class 1A- **90**.
 - 2. Hail Resistance: **MH**.
- D. Pre-installation Meeting:
 - 1. Convene a Pre-installation Meeting at Project Site one week prior to commencing work of this Section.
 - 2. Require attendance of parties directly affecting work of this Section.
 - 3. Review preparation and installation procedures and coordinating and scheduling required with related work.
 - a. Require Manufacturer's Roofing Quality Control Inspector to conduct Pre-installation Meeting along with Contractor Quality Control Representative and Contracting Officer.
 - 4. Agenda:
 - a. Tour, inspect and discuss condition of substrate, roof drains, roof drain final locations, curbs, penetrations and other preparatory work performed by other trades.
 - b. Review structural loading limitations of deck and inspect deck for loss of flatness and for required mechanical fastening.
 - c. Review roofing system requirements (Drawings, Specifications and other Contract Documents).
 - d. Review required submittals, both completed and yet to be completed.
 - e. Review and finalize construction schedule related to roofing work and verify availability of materials, installer's personnel, equipment and facilities needed to make progress and avoid delays.
 - f. Review requirements for inspections, testing, certifying, and material usage accounting procedures.
 - g. Review weather and forecasted weather conditions, and procedures for coping with unfavorable conditions, including possibility of temporary roofing.
 - h. Review safety precautions relating to roofing installation.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Section 016000 - Product Requirements: Transport, handle, store, and protect products.
- B. Deliver materials in manufacturer's original unopened containers or wrappings, dry, undamaged, seals and labels intact.
- C. Store materials in weather protected environment, clear of ground and moisture. Protect foam insulation from direct sunlight exposure.
- D. Protect adjacent materials and surfaces against damage from roofing work. Do not store materials on previously completed roofing.

1.7 PROJECT CONDITIONS OR SITE CONDITIONS

- A. Environmental Requirements:
 - 1. Do not apply roofing membrane during inclement weather. When air temperature is expected to fall below 40 degrees F, follow submitted roof system manufacturer's specified Cold Weather Application Procedures.
 - 2. Do not apply roofing membrane to wet, damp or frozen deck surface or when precipitation is occurring.
 - 3. Do not expose materials vulnerable to water or the sun in quantities greater than can be weatherproofed during same day.

1.8 WARRANTY

- A. Section 017704 - Closeout Submittals: Procedures for closeout submittals.
- B. Special Warranty:
 - 1. Submit written warranty letter that includes the roofing work in the existing roof warranty.
 - 2. Warranty shall not exclude "ponding" water.
 - 3. Warranty Period: The existing warranty period shall be maintained.
 - 4. Include materials and workmanship for all manufacturer's supplied roofing components including but not limited to:
 - a. Membranes.
 - b. Flashings, including edge metal, metal flashings and accessories supplied by roofing membrane manufacturer.
 - c. Insulation.
 - d. Fasteners.
 - e. Adhesives.
 - 5. Include the following items within Warranty:
 - a. Roofing inspection by Manufacturer's Roofing Quality Control Inspector between 22 and 24 months after date of Final Acceptance.
 - b. Roofing manufacturer will provide unlimited repairs on warranted items during warranty period with no cost limitation.
 - c. Temporary emergency repairs may be made by United States Postal Service without voiding any warranty provisions. USPS must immediately notify roofing membrane manufacturer of such repairs.
 - d. Attach copy of Record Document Roof Plan Drawings, Roof Detail Drawings, and Project Membrane Roofing Specification Section to Warranty letter.

PART 2 - PRODUCTS

2.1 ROOFING MEMBRANE

- A. Must have recycled content.
- B. Fabric or fiber reinforced Polyvinyl Chloride Roofing Membrane shall comply with ASTM D4434, Type II or Type III. KEE Membrane Shall comply with ASTM D6754.
- C. Minimum thickness of 0.059 inch (59 mil) (1.5 mm)
- D. Product must meet ENERGY STAR requirements for low-slope roofs and must be listed on the ENERGY STAR Roof Products Program Qualified Product List.
- E. Solar reflectance per Energy Star or Cool Roof Council (CRRRC)
 - 1. Initial Reflectance: 0.65 minimum
 - 2. Three years after installation: 0.50 minimum

2.2 ROOFING SYSTEM MANUFACTURERS

- A. Subject to compliance with project requirements, manufacturers offering specified items which may be incorporated into the Work include the following in order to continue existing warranty:
 - 1. Sika Sarnafil Division, Sika Corp, Canton, MA (800) 451-2504.
- B. Manufacturer of roofing membrane must be a Partner in the EPA ENERGY STAR® Roof Products Program for energy efficiency and membrane supplied must be listed on the ENERGY STAR Roof Products Qualified Product List.
- C. Section 016000 - Product Requirements: Product options and substitutions. Substitutions: Not Permitted with Contracting Officer Approval.

2.3 AUXILIARY MATERIALS

- A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with membrane roofing.
 - 1. Liquid-type auxiliary materials shall meet VOC limits of authorities having jurisdiction.
- B. Sheet Flashing
 - 1. Manufacturer's standard sheet flashing of same material, type, reinforcement, thickness, and color as PVC sheet membrane.
 - 2. Manufacturer's standard PVC clad metal - A PVC-coated, heat-weldable sheet metal capable of being formed into a variety of shapes and profiles. PVC Clad Metal shall be a 25 gauge, G90 galvanized metal sheet with a 20 mil (0.5 mm) unsupported PVC membrane laminated on one side.
- C. Bonding Adhesive: Manufacturer's standard clear or light-colored solvent or water-based bonding adhesive for membrane, and solvent-based bonding adhesive for base flashings.

2.4 ROOF INSULATION

Polyisocyanurate Foam Insulation

- A. Flat Roof Board Insulation: Polyisocyanurate Foam Insulation which meets or exceeds FS HH-I-1972/2, both faces covered with glass fiber felt; comply with FMG Standard 4450 Approval. (ASTM C1289, Type II – Class 1 – Grade 2)
 - 1. Thermal Resistance: in service R-5.6 per inch of thickness in cooling conditions
 - 2. Thermal Resistance: in service R-5.0 per inch of thickness in heating conditions
 - 3. Compressive Strength: 20 PSI Minimum
 - 4. Maximum Board Thickness is 2"
 - 5. Minimum Board Thickness is 1.5" on the base layer
- B. Tapered Polyisocyanurate Foam Insulation: Provide crickets, saddles, and tapered insulation of same material as second layer of insulation; taper to the following slopes:
 - 1. Crickets and Saddles: 1/4 inch per foot or twice the slope of the roof, whichever is greater.
 - 2. Insulation Installed to Counterslope Roof Structure: 1/2 inch to the foot, or twice slope of roof, whichever is greater.
- C. Tapered Insulation: Provide crickets, saddles, and tapered insulation of same material as second layer of insulation; taper to the following slopes:
 - 1. Crickets and Saddles: 1/4 inch per foot or twice the slope of the roof, whichever is greater.
 - 2. Insulation Installed to Counterslope Roof Structure: 1/2 inch to the foot, or twice slope of roof, whichever is greater.
- E. Cover Board: 1/2" Factory Primed Glass Mat Gypsum Roof Board: ASTM C-1177. Zero flame spread and zero smoke developed per ASTM E84. Minimum 500 pounds per square inch compressive strength.

2.5 ACCESSORIES

- A. Roofing Insulation Fasteners: Fasteners shall be as tested and approved by FMG as part of the roofing system assembly.
 - 1. Mechanical Fasteners for Insulation: Coated fasteners with plates appropriate for purpose intended and approved by Factory Mutual and supplied by roofing membrane manufacturer. Thickness of insulation and roofing membrane manufacturer's deck penetration requirements shall determine the length of the fastener.
- B. Walkway Pads: Walkway materials shall be provided by the roofing membrane manufacturer
- C. Isolation Pads: Provide a piece of walkway pad as above
- D. Termination: Use roofing membrane manufacturer's recommended termination details and associated products to comply with Warranty requirements
- E. Pipe Flashings: Prefabricated pipe flashings shall be supplied by the roofing membrane manufacturer

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Section 017300 - Execution: Verification of existing conditions before starting work.

- B. Verification of Conditions: Verify, with Manufacturer's Quality Control Inspector present, that field measurements, surfaces, substrates and conditions are as required, and ready to receive Work.
 - 1. Verify deck is clean and smooth, free of depressions, waves, or projections, properly sloped to drains, valleys, and eaves. Verify flutes of steel deck are evenly spaced at intersections.
 - 2. Verify roof openings, curbs, pipes, sleeves, ducts, or vents through roof are solidly set, and nailing strips, and reglets are in place. Verify deck is supported and tightly secured.
 - 3. Verify deck surfaces are dry and free of water, snow, and ice.
- C. Report in writing to Contracting Officer prevailing conditions that will adversely affect satisfactory execution of the Work of this Section. Do not proceed with Work until unsatisfactory conditions have been corrected.
- D. By beginning Work, Contractor accepts conditions and assumes responsibility for correcting unsuitable conditions encountered at no additional cost to the United States Postal Service.

3.2 PREPARATION

- A. Provide covers and other means of protection as necessary to protect building surfaces against damage during roofing work.
- B. Where work shall continue over finished roof membrane, protect surfaces according to roofing membrane manufacturer's recommendations.

3.3 ROOF INSULATION INSTALLATION

- A. Lay insulation boards to moderate contact without forcing joints. Cut insulation to fit neatly to perimeter blocking and around protrusions through roof.
 - 1. Gaps between insulation boards, nailers and penetrations of 1/4 inch (0.64 cm) or greater are not acceptable.
- B. Place roof crickets and tapered thickness insulation to the required slope pattern in accordance with manufacturer's published instructions.
- C. Mechanically Attached Installation:
 - 1. Maximum insulation board dimension is 4' x 8'
 - 2. Place long edge of boards parallel to deck flutes, forming joint over solid bearing. Lay first layer insulation units with long edge joints continuous and end joints staggered.
 - 3. Lay second and subsequent layers of insulation with both long side and end joints offset 6 inches (15 cm) from joints below.
 - 4. Factory primed glass mat gypsum board and overlayered insulation may be loose laid and fastened with the same insulation fastener and plate in accordance with manufacturer's approved assembly. Fastener and plate must be approved by the roof system manufacturer and installed at the required density to achieve the specified FMG 1A-90 system, in accordance with requirements of FMG Loss Prevention Data Sheet 1-29 for specified wind uplift requirements.
- D. Apply no more insulation than can be waterproofed with roofing membrane in same day.
- E. Lay insulation boards to moderate contact without forcing joints. Cut insulation to fit neatly to perimeter blocking and around protrusions through roof.
 - 1. Gaps between insulation boards, nailers and penetrations of 1/4 inch (0.64 cm) or greater are not acceptable.

- F. Place roof crickets and tapered thickness insulation to the required slope pattern in accordance with manufacturer's published instructions.
- G. Apply no more insulation than can be waterproofed with roofing membrane in same day.

3.4 ROOFING MEMBRANE APPLICATION

- A. Apply roofing membrane in accordance with membrane manufacturer's published instructions for specified system.
- B. All quality control recommendations of the roofing system manufacturer shall be strictly followed.
- C. Cold Weather Application Procedures: When air temperature is expected to fall below 40 degrees F, follow Cold Weather Application Procedures as follows:
 - 1. Store flashing adhesive in heated storage units (minimum temperature 40 degrees F) prior to installation.
 - 2. Follow roofing membrane manufacturer's recommendation for cold weather application of adhered field sheets, corner & perimeter area, and flashings.

3.5 WATER CUTOFFS AND WEATHER PROTECTION

- A. Install water cut-offs according to roofing membrane manufacturer's recommendations at end of day's operation to seal insulation and edge of roof membrane from moisture entry. If rain or foul weather appears imminent during roofing application, cease operations and protect deck, insulation, flashings, penetrations and membrane from moisture intrusion and damage with water cutoffs. Insulation and roofing materials not so protected before rain are considered damaged materials and will be rejected.
- B. Water cut-offs over steel deck must include steel deck flute plugs to prevent moisture from getting under insulation.
- C. Remove water cut-offs and other temporary weather protections prior to continuing roofing work. Remove materials that have been subject to moisture damage and return deck to clean, dry condition before proceeding with roofing operations. Remove damaged materials from job site.
- D. Water cut-offs and weather protection shall not be considered part of final roof system specified.

3.6 FLASHING MEMBRANE AND ACCESSORIES

- A. Field membrane shall be terminated with fasteners and plates. Flashing membrane, mechanically attached or adhered, shall be extended past the termination of the field membrane and hot air welded on the horizontal plane.
- B. Roof Penetrations:
 - 1. Prefabricated pipe flashings shall be installed where the configuration of penetration will permit, including but not limited to electrical conduit, and plumbing vents.
 - 2. Field fabrication of flashing shall be used where the configuration of the penetration prohibits the use of prefabricated flashing.
- C. Fasten membrane and flashing terminations per roofing membrane manufacturer's recommendations.

- D. Walkway Pads: Weld walkways to roofing membrane per manufacturer's recommendation.

3.7 ROOF SURFACING

- A. No field-applied surfacing shall be utilized with this roofing system.

3.8 CONSTRUCTION

- A. Interface with Other Work:
 - 1. Coordinate Work with installation of associated metal counterflashings as Work of this Section proceeds.
 - 2. Complete installation of base flashing at roof curbs prior to setting roof top equipment.
 - 3. Coordinate Work with Plumbing for roof drain(s) installation.

3.9 FIELD QUALITY CONTROL

- A. Section 014000 -Quality Requirements: Field inspection.
- B. Manufacturer's Field Services: Manufacturer's Roofing Quality Control Inspector.
 - 1. Attend and conduct Pre-installation Meeting.
 - 2. Perform preparatory, initial, follow-up and final inspections for roof insulation and roofing system.
 - 3. Prepare and submit inspection reports for each inspection made.
- C. Maintenance Instruction
 - 1. Provide on-site instruction to review the components of the system and detail any common troubleshooting or maintenance that is required to ensure normal performance of the roofing system.
 - 2. Provide one complete set of installation details and component manuals that will remain at the installed location.

3.10 CLEANING

- A. Section 017300 - Execution: Requirements for cleaning.
- B. Remove dirt, debris, and markings from finished surfaces. In areas where finished surfaces are soiled, consult roofing membrane manufacturer for cleaning advice and comply with their instruction.
- C. Replace defaced or disfigured finishes caused by Work of this Section.

3.11 PROTECTION

- A. Where construction traffic must continue over finished roof installation, protect surfaces in manner recommended by roofing system manufacturer to protect Manufacturer's Warranty.

END OF SECTION

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USPS CSF SPECIFICATION

Date: 10/1/2020

POLYVINYL-CHLORIDE
MEMBRANE ROOFING

SECTION 076200

SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Flashings and counterflashings , gutters and downspouts, and fabricated sheet metal items.
 - 2. Sheet metal accessories.
- B. Related Documents: The Contract Documents, as defined in Section 011000 - Summary of Work, apply to the Work of this Section. Additional requirements and information necessary to complete the Work of this Section may be found in other Documents.

1.2 REFERENCES

- A. American Society for Testing and Materials (ASTM):
 - 1. ASTM B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
- B. Federal Specifications (FS):
 - 1. FS TT-C-494 - Coating Compound, Bituminous, Solvent Type, Acid Resistant.

1.3 SUBMITTALS

- A. Section 013300 - Submittal Procedures: Procedures for submittals.
 - a. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details.

1.4 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Fabricator: Company specializing in manufacturing Products specified with minimum 5 years documented experience.
 - 2. Installer: Company specializing in performing the Work of this Section with minimum 5 years documented experience.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Section 016000 - Product Requirements: Transport, handle, store, and protect Products.
- B. Stack material to prevent twisting, bending, and abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
- C. Prevent contact with materials which may cause discoloration or staining.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Aluminum Sheet: ASTM B209, 3003 alloy, H14 temper; 0.025 inch minimum thickness; Class I clear anodized finish. Actual thickness as indicated on contract drawings or as needed to comply with code requirements and to prevent oil canning.
- B. Pre-Finished Aluminum Sheet: ASTM B209, 3003 alloy, H14 temper; 0.025 inch minimum thickness; finish shop pre-coated with PVDF (polyvinylidene fluoride)] coating; color as indicated on Drawings.

2.2 ACCESSORIES

- A. Fasteners: Aluminum.
- B. Protective Backing Paint: FS TT-C-494, Bituminous.
- C. Sealant: Specified in Section 079200.

2.3 FABRICATION

- A. Form sections true to shape, accurate in size, square, and free from distortion or defects.
- B. Fabricate cleats of same material as sheet, interlocking with sheet.
- C. Form pieces in longest possible lengths.
- D. Hem exposed edges on underside 1/2; miter and seam corners.
- E. Form material with flat lock seams, except where otherwise indicated. At moving joints, use sealed lapped, bayonet-type or interlocking hooked seams.
- F. Tin edges of copper sheet to be soldered. Solder shop formed metal joints. After soldering, remove flux. Wipe and wash solder joints clean. Weather seal joints.
- G. Seal metal joints.

2.4 FACTORY FINISHING

- A. PVDF (polyvinylidene fluoride) coating: Multiple coat, thermally cured, fluoropolymer system conforming to AAMA 605.2.
- B. Primer Coat: Finish concealed side of metal sheets with primer compatible with finish system, as recommended by finish system manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Section 017300 - Execution: Verification of existing conditions before starting work.
- B. Verification of Conditions: Verify that field measurements, surfaces, substrates and conditions are as required, and ready to receive Work.
 - 1. Verify roof openings, curbs, pipes, sleeves, ducts, and vents through roof are solidly set, reglets in place, and nailing strips located.
 - 2. Verify roofing termination and base flashings are in place, sealed, and secure.
- C. Report in writing to Contracting Officer prevailing conditions that will adversely affect satisfactory execution of the Work of this Section. Do not proceed with Work until unsatisfactory conditions have been corrected.
- D. By beginning Work, Contractor accepts conditions and assumes responsibility for correcting unsuitable conditions encountered at no additional cost to the United States Postal Service.

3.2 PREPARATION

- A. Install starter and edge strips, and cleats before starting installation.
- B. Install surface mounted reglets true to lines and levels. Seal top of reglets with sealant.
- C. Paint concealed metal surfaces with protective backing paint to a minimum dry film thickness of 15 mil .

3.3 INSTALLATION

- A. Secure flashings in place using concealed fasteners.
- B. Apply plastic cement compound between metal flashings and felt flashings.
- C. Fit flashings tight in place. Make corners square, surfaces true and straight in planes, and lines accurate to profiles.
- D. Seal metal joints watertight.

END OF SECTION

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SECTION 078400

FIRESTOPPING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Firestopping in fire-rated wall assemblies.
- B. Related Documents: The Contract Documents, as defined in Section 011000 - Summary of Work, apply to the Work of this Section. Additional requirements and information necessary to complete the Work of this Section may be found in other documents.

1.2 REFERENCES

- A. American Society for Testing and Materials (ASTM):
 - 1. ASTM E 119 - Test Methods for Fire Tests of Building Construction and Materials.
 - 2. ASTM E 814 - Test Methods for Fire Tests of Through Penetration Fire Stops.
- B. Underwriters' Laboratories, Inc. (UL):
 - 1. UL 1479 - Fire Tests of Through-Penetration Firestops.

1.3 DEFINITIONS

- A. Firestopping: Sealing material or assembly placed in spaces between building materials to stop movement of smoke, heat, gasses, or fire through wall openings.

1.4 SYSTEM DESCRIPTION

- A. Firestopping Materials: ASTM E 119, ASTM E 814, UL 1479 to achieve a fire rating as indicated on Drawings.

1.5 SUBMITTALS

- A. Section 013300 - Submittal Procedures: Procedures of submittals.
 - 1. Product Data: Product characteristics, performance, and limitation criteria.
 - 2. Assurance/Control Submittals:
 - a. Certificates: Manufacturer's certificate that Products meet or exceed specified requirements.
 - b. Qualification Documentation: Firestopping installer documentation of experience indicating compliance with specified qualification requirements.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing work of this Section with minimum 5 years documented experience.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver Products in manufacturer's original unopened containers or packages with labels intact, identifying product and manufacturer, date of manufacture, lot number, shelf life, curing time, and mixing instructions, where applicable.
- B. Store and handle materials to prevent deterioration or damage due to moisture, temperature changes, contaminants, or other causes.

1.8 PROJECT CONDITIONS OR SITE CONDITIONS

- A. Environmental Requirements:
 - 1. Do not install materials when temperature of substrate material and ambient air is below 60 degrees F.
 - 2. Maintain minimum temperature before, during, and for 3 days after installation of materials.
 - 3. Keep away from heat, open flame, sparks, or other sources of ignition until curing is complete. Use only with adequate ventilation.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Subject to compliance with project requirements, manufacturer's offering firestopping materials which may be incorporated in the work include the following:
 - 1. Nelson Firestop Products, Tulsa, OK (800) 331-7325.
 - 2. Hilti Firestop Systems, Tulsa, OK (800) 879-8000.
 - 3. The Rectorseal Corporation, Houston, TX (800) 231-3345.
 - 4. Specified Technologies, Incorporated (STI), Somerville, NJ (800) 992-1180.
 - 5. 3M Fire Protection Products, St. Paul, MN (800) 328-1687.
 - 6. Tremco Firestop System, Beechwood, OH (800) 321-7906.
 - 7. Specified Technologies, Inc., Somerville, NJ (800) 992-1180.
- B. Other products such as USG Firestop System by U.S. Gypsum Co. are acceptable if complying with requirements.
- C. Section 016000 - Product Requirements: Product options and substitutions. Substitutions: Permitted.

2.2 MATERIALS

- A. Intumescent Latex Sealant: Single-component, intumescent, latex formulation.
 - 1. LBS, by Nelson Firestop Products.
 - 2. Metacaulk 950 or 1000, by RectorSeal.
 - 3. SpecSeal SSS100, by STI.
 - 4. CP 25WB+, by 3M.
 - 5. TREMstop WBM, by Tremco.

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- B. Intumescent Solvent-Release-Curing Sealant: Single component, intumescent, synthetic-polymer based, non-sag grade.
 - 1. CP 25N/S, by 3M.
 - 2. TREMstop WBM, by Tremco.
- C. Intumescent Wrap/Strip: Single-component, elastomeric sheet with aluminum foil on one face.
 - 1. WRS, by Nelson Firestop Products.
 - 2. Metacaulk Wrap Strip, by RectorSeal.
 - 3. SpecSeal SSWRED Wrapstrip, by STI.
 - 4. FS-195+ Wrap/Strip, by 3M.
 - 5. TREMstop WS, by Tremco.
- D. Intumescent Putty: Single-component, non-hardening, dielectric, intumescent putty.
 - 1. FSP, by Nelson Firestop Products.
 - 2. Metacaulk Fire Rated Putty, by RectorSeal.
 - 3. SpecSeal Putty, by STI.
 - 4. Moldable Putty+, by 3M.
- E. Silicone Sealant: Single-component, moisture-curing, silicone-based elastomeric, non-sag grade.
 - 1. CLK N/S, by Nelson Firestop Products.
 - 2. FS 601, by Hilti.
 - 3. Metacaulk 835+, by RectorSeal.
 - 4. SpecSeal PEN 300, by STI.
 - 5. 2000+ Silicone, by 3M.
 - 6. FYRE SIL, by Tremco.
- F. Silicone Foam: Two-component, silicone-based liquid elastomer that, when mixed, expands and cures in place to produce a flexible, nonshrinking foam.
 - 1. FS Fireblocks, by Hilti.
 - 2. SpecSeal PEN 200, by STI.
 - 3. 2001 Silicone RTV Foam, by 3M.
- G. Intumescent Collar: Factory-fabricated, intumescent collar.
 - 1. PCS, by Nelson Firestop Products.
 - 2. CP 642, by Hilti.
 - 3. Metacaulk Pipe Collar, by RectorSeal.
 - 4. SpecSeal SSC Collars, by STI.
 - 5. Plastic Pipe Device, by 3M.
 - 6. TREMstop D, by Tremco.
- H. Intumescent Composite Sheet or Pillows and Mortar: Intumescent sheet used to firestop large openings.
 - 1. CPS, by Nelson Firestop Products.
 - 2. SpecSeal SSB Pillows and SpecSeal SSM Firestop Compound, by STI.
 - 3. CS-195+ Composite Sheet, by 3M.
 - 4. TREMstop PS, by Tremco.
- I. Fire Rated Cable Pathway Device for low voltage and optical fiber cabling.
 - 1. EZ-Path Firestop System by Specified Technologies, Inc.
- J. Packing Material: Manufacturer's standard mastic, putty, ceramic fiber blanket, or mineral wool to be used as fill or backing material for firestopping.
 - 1. FSB or Mineral Wool, by Nelson Firestop Products.
 - 2. Mineral Wool, by Hilti.
 - 3. Fire Safing or Backer Rod, by RectorSeal.

4. Mineral Wool Safing, by STI.
5. FireMaster Mastic, FireMaster Putty, or FireMaster Bulk, by 3M.
6. Cerablanket, by Tremco.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Section 017300 - Execution: Verification of existing conditions before starting work.
- B. Verification of Conditions: Verify that field measurements, surfaces, and conditions are as required, and ready to receive Work.
- C. Report in writing to Contracting Officer prevailing conditions that will adversely affect satisfactory execution of the Work of this Section. Do not proceed with Work until unsatisfactory conditions have been corrected.
- D. By beginning Work, Contractor accepts conditions and assumes responsibility for correcting unsuitable conditions encountered at no additional cost to United States Postal Service.

3.2 PREPARATION

- A. Clean substrate surfaces of dirt, dust, grease, oil, loose material, or other matter which may affect bond of firestopping material.
- B. Remove incompatible materials which may affect bond.
- C. Place hangers or damming materials in penetration to hold firestopping materials where required.

3.3 INSTALLATION

- A. Follow manufacturer charts for appropriate material to achieve required fire rating in various locations.
- B. Install firestopping at penetrations of fire rated wall materials by sleeves, piping, ductwork, conduit, and other items in accordance with manufacturer's published instructions.

3.4 CLEANING AND PROTECTION

- A. Clean excessive fill materials and sealants adjacent to openings and joints as work progresses by methods and with cleaning materials approved by manufacturer's of firestopping Products and of products in which opening and joints occur.
- B. Protect firestopping during and after curing period from contact with contaminating substances or from damage resulting from construction operations.
- C. If damage occurs, cut out and remove damaged or deteriorated firestopping and install new materials.

3.5 FIELD QUALITY CONTROL

- A. Section 014000 - Quality Requirements: Inspection procedures.
- B. Contracting Officer will inspect each firestopping installation. Do not cover firestopping installations that will be concealed by other construction until Contracting Officer inspection.

3.6 SCHEDULES

- A. Provide firestopping complying with UL assemblies specified below.

Penetration	Assembly	Nelson	Hilti	RectorSeal	STI	3M	Tremco
Metal Pipe	CMU Wall 8" Thick or Less	CAJ1224 or CAJ1203	CAJ1150 or CAJ1158	CAJ1114 or CAJ1115	CAJ1079 or CAJ1217	CAJ1001 or CAJ1009	CAJ1179 or CAJ1187
	Gypsum Board Partition	WL1083 or WL1030	WL1052 or WL1054	WL1026 or WL1034	WL1049 or WL1079	WL1003 or WL1009	WL1020 or WL1051
Non-Metallic Pipe	CMU Wall 8" Thick or Less	CAJ2086	CAJ2095 or CAJ2109	CAJ2021 or WJ2025	CAJ2064 or CAJ2045	CAJ2005	CAJ2082 or FA2024
	Gypsum Board Partition	WL2071	WL2078	WL2015 or WL2104	WL2093 or WL2029	WL2002 or WL2005	WL2083 or WL2082
Cable Tray	CMU Wall 8" Thick or Less	CAJ8049 or CAJ4033	CAJ4017	CAJ8043	CAJ4020 or CAJ4029	CAJ4003 or CBJ4020	CAJ4007 or WJA4005
	Gypsum Board Partition	WL4003	WL4006	N/A	WL4005 or WL4008	WL4004	WL3043 or WL3044
Insulated Metal Pipe	CMU Wall 8" thick or Less	CAJ5008 or CAJ5059	CAJ5045	WJ5016 or CAJ5070	CAJ5021 or CAJ5029	CAJ5001 or CAJ5002	CAJ5052 or CBT5005
	Gypsum Board Partition	WL5036	WL5022 or WL5029	WL5057	WL5014 or WL5051	WL5001	WL5034
Construction Gaps	CMU Wall to Metal Deck	N/A	HW-D-0008	TRC/PV120-14	U900Z020	U900Z028	U900Z013 or U900Z014
	Gypsum Board Partition to Metal Deck	N/A	HW-D-0003 or HW-D-0004	HWD0014 or TRC/PV120-14	HWD1001	U400V	WHPV60.01 or U900Z014

END OF SECTION

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SECTION 079200

JOINT SEALANTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Preparing sealant substrate surfaces.
 - 2. Sealant and backing.
- B. Related Documents: The Contract Documents, as defined in Section 011000 - Summary of Work, apply to the Work of this Section. Additional requirements and information necessary to complete the Work of this Section may be found in other documents.
- C. Related Sections:
 - 1. Section 078400 - Firestopping: Firestopping sealant at fire-rated assemblies.
 - 2. Section 076200 - Sheet Metal Flashing and Trim: Sealants used in conjunction with metal flashings.

1.2 REFERENCES

- A. American Society for Testing and Materials (ASTM):
 - 1. ASTM C717 - Standard Terminology of Building Seals and Sealants.
 - 2. ASTM C834 - Specification for Latex Sealants.
 - 3. ASTM C920 - Specification for Elastomeric Joint Sealants.
 - 4. ASTM D1056 - Flexible Cellular Material- Sponge or Expanded Rubber.
- B. Federal Specifications (FS):
 - 1. FS SS-S-200 - Sealing Compounds, Two Component, Elastomeric, Polymer Type, Jet-Fuel Resistant, Cold Applied.
 - 2. FS TT-S-1657 - Sealing Compound, Single Component Butyl Rubber Based Solvent Release Type (for Buildings and other Types of Construction).

1.3 SUBMITTALS

- A. Section 013300 – Submittal Procedures: Procedures for submittals.
 - 1. Product Data: Product chemical characteristics, performance criteria, substrate preparation, limitations, and color availability.
- B. Section 017704 - Closeout Procedures and Training: Procedures for closeout submittals.
 - 1. Warranty: Submit manufacturer warranty with forms completed in United States Postal Service name and registered with manufacturer.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing Work of this Section with minimum 5 years documented experience.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Section 016000 - Product Requirements: Transport, handle, store, and protect products.
- B. Deliver Products in manufacturer's original unopened containers or packages with labels intact, identifying product and manufacturer, date of manufacture, lot number, shelf life, curing time, and mixing instructions, where applicable.
- C. Store and handle materials to prevent deterioration or damage due to moisture, temperature changes, contaminants, or other causes.

1.6 PROJECT CONDITIONS OR SITE CONDITIONS

- A. Environmental Requirements: Install sealant during manufacturer's recommended temperature ranges and weather conditions for application and cure. Consult manufacturer when sealant cannot be applied during recommended conditions.

1.7 WARRANTY

- A. Section 017704 - Closeout Procedures and Training: Procedures for closeout submittals.
- B. Warranty:
 - 1. Submit written warranty signed by sealant manufacturer agreeing to replace sealants and accessories which fail because of loss of cohesion or adhesion or which do not cure.
 - 2. Warranty Period: 5 years or longer per the manufacturers' standard warranties.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Subject to compliance with project requirements, manufacturers offering specified items which may be incorporated into the work include the following:
 - 1. Bostik, Inc, Huntingdon Valley, PA, (800) 523-2678, (125) 674-5600.
 - 2. Dow Corning, Midland, MI (517) 496-4000.
 - 3. GE Silicones, Waterford, NY (518) 233-3330.
 - 4. Mameco International, Cleveland, OH, (800) 321-6412, (216) 752-4400.
 - 5. W.R. Meadows, Inc, Elgin, IL (800) 342-5976, (847) 683-4500.
 - 6. Nomaco, Inc., Zebulon, NC, (919) 269-6500.
 - 7. Pecora Corporation, Harleysville, PA, (800) 523-6688, (215) 723-6051.
 - 8. Sika Corporation, Lyndhurst, NJ, (800) 933-7452, (201) 933-8800.
 - 9. Sonneborn Building Products Div. ChemRex, Inc., Shakopee, MN (800) 243-6739, (612) 496-6000.
 - 10. Tremco, Beachwood, OH, (800) 852-3821, (216) 292-5000.
 - 11. USG Corp., Chicago, IL (800) 874-4968, (312) 606-4000.
 - 12. Sherwin-Williams Co. (The), Cleveland, OH (800) 321-8194

2.2 BUILDING SEALANTS (See Sealant Schedule at the end of this Section for specific use of sealants.)

- A. Urethanes:
 - 1. Type 1: Two-Part Urethane: Self-Leveling, ASTM C920, Type M, Grade P, Class 25.

- a. Chem-Calk CC-550, by Bostik.
 - b. Vulkem 245, by Mameco.
 - c. Vulkem 255, Wide-Joint, by Mameco.
 - d. NR-200 Urexpan, by Pecora Corporation.
 - e. Loxon 2K SL Multi-Component Polyurethane Sealant, by Sherwin-Williams.
 2. Type 2: Two-Part Urethane: Non-Sag, ASTM C920, Type M, Grade NS, Class 25.
 - a. Chem-Calk 500, by Bostik.
 - b. Vulkem 227, by Mameco.
 - c. Sonolastic NP 2, by Sonneborn Building Products, ChemRex Inc.
 - d. Loxon 2K NS Multi-Component Polyurethane Sealant, by Sherwin-Williams.
 3. Type 3: One-Part Urethane: Self-Leveling, ASTM C920, Type S, Grade P, Class 25.
 - a. Vulkem 45, by Mameco.
 - b. Urexpan NR-201, by Pecora Corporation.
 - c. Sonolastic SL1, by Sonneborn Building Products, ChemRex Inc.
 - d. Sikaflex 1C-SL by Sika.
 - e. Loxon 1K SL Polyurethane Sealant, by Sherwin-Williams.
 4. Type 4: One-Part Urethane: Non-Sag, ASTM C920, Type S, Grade NS, Class 25.
 - a. Chem-Calk 900, by Bostik.
 - b. Vulkem 116, by Mameco.
 - c. Sonolastic NP I, by Sonneborn Building Products, ChemRex Inc.
 - d. Loxon 1K Smooth Polyurethane Sealant, by Sherwin-Williams.
- B. Silicones:
1. Type 1: One-Part Silicones: ASTM C920, Type S, Grade NS, Class 50.
 - a. 795 Silicone Building Sealant, by Dow Corning.
 - b. 864 Architectural Silicone Sealant, by Pecora Corporation.
 - c. White Lightning Silicone Ultra Sealant, by Sherwin-Williams.
 2. Type 2: One-Part Silicones: ASTM C920, Type S, Grade NS, Class 25.
 - a. 999-A Silicone Building & Glazing Sealant, Dow Corning.
 - b. Construction 1200 Sealant, General Electric Company.
 3. Type 3: One-Part Silicones: ASTM C920, Type S, Grade NS, Class 25. Vertical Surfaces Only.
 - a. Construction 1200 Sealant, General Electric Company.
 - b. 999-A, Dow Corning.
 - c. 860 Glaziers and Contractors Silicone Sealant, by Pecora Corporation. (colors only)
 4. Type 4: One-Part Silicones: ASTM C920, Type S, Grade NS, Class 25 or 50.
 - a. 786 Mildew Resistant Silicone Sealant, Dow Corning.
 - b. SCS 1700 Sanitary Sealant, General Electric.
 - c. 898 Silicone Sanitary Sealant, Pecora Corporation.
- C. Acrylics, Latex:
1. Type 1: One-Part Acrylic Latex, Non-Sag, ASTM-C-834-76.
 - a. Chem-Calk 600, by Bostik.
 - b. LC-130, by MACCO Adhesives, The Glidden Company.
 - c. Easa-ply ALS, by W. R. Meadows, Inc.
 - d. AC-20+Silicone Acrylic Latex, by Pecora Corporation.
 - e. Sonolac, Sonneborn Building Products, ChemRex Inc
 - f. 950A Siliconized Acrylic Latex Caulk, by Sherwin-Williams.
- D. Acoustical Sealants:
1. Type 1: AC-20 FTR Acoustical and Insulation Sealant, by Pecora Corporation.
 2. Type 2: 60+ Unicrylic, by Pecora Corporation.
 3. Type 3: Sheetrock Acoustical Sealant, by United States Gypsum.
 4. Power House Siliconized Latex Caulk, by Sherwin-Williams

- E. Butyls:
 - 1. Type 1: One-Part Butyl, Non-Sag, FS TT-S-1657.
 - a. Chem-Calk 300, by Bostik.
 - b. BC-158 Butyl Rubber, by Pecora Corporation. (ASTM C1085)
 - c. White Lightning Butyl Rubber Caulk, by Sherwin-Williams. (ASTM C1311)
- F. Preformed Compressible & Non-Compressible Fillers:
 - 1. Type 1: Backer Rod - Closed cell polyethylene foam:
 - a. HBR Backer Rod, by Nomaco.
 - b. #92 Greenrod, by Nomaco.
 - c. Sonofoam Closed-Cell Backer Rod, Sonneborn Building Products, ChemRex Inc.
 - 2. Type 2: Backer Rod - Open cell polyurethane foam:
 - a. Denver Foam, by Backer Rod Mfg Inc.
 - b. Foam Pack II, by Nomaco.
 - 3. Type 3: Neoprene compression seals:
 - a. WE, WF, and WG Series, by Watson Bowman & Acme Corp.
 - b. Will-Seal 150 Precompressed Expanding Foam Sealants, by Will-Seal, a Division of Illbruck.
 - 4. Type 4: Butyl Rod: Kirkhill Rubber Co. (714)529-4901.
- G. Bond Breaker Tape: Polyethylene tape of plastic as recommended by sealant manufacturer, to be applied to sealant-contact surfaces where bond to substrate of joint filler must be avoided for proper performance of sealant

2.3 PAVING SEALANTS

NOT USED

2.4 COLORS

- A. Generally, use sealant colors matching color of material joint is located in.
- B. Where a joint occurs between two materials of differing colors and Contractor cannot determine which material to match, contact Contracting Officer for selection.

2.5 ACCESSORIES

- A. Joint Cleaner: Provide type of joint cleaning compound recommended by sealant manufacturer for joint surfaces to be cleaned.
- B. Primer: As recommended by sealant manufacturer.
- C. Masking tape and similar accessories to protect surfaces from damage.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Section 017300 - Execution: Verification of existing conditions before starting work.

- B. Verification of Conditions: Verify that field measurements, surfaces, substrates and conditions are as required, and ready to receive Work.
 - 1. Verify that joint widths are in conformance with sealant manufacturer allowable limits.
 - 2. Verify that contaminants capable of interfering with adhesion have been cleaned from joint and joint properly prepared.
- C. Report in writing to Contracting Officer prevailing conditions that will adversely affect satisfactory execution of the Work of this Section. Do not proceed with Work until unsatisfactory conditions have been corrected.
- D. By beginning Work, Contractor accepts conditions and assumes responsibility for correcting unsuitable conditions encountered at no additional cost to the United States Postal Service.

3.2 PREPARATION

- A. Prepare and size joints in accordance with manufacturer's instructions. Clean substrates of dirt, laitance, dust, or mortar using solvent, abrasion, or sandblasting as recommended by manufacturer. Remove loose materials and foreign matter which might impair adhesion of sealant.
- B. Verify that joint backing and release tapes are compatible with sealant. Verify sealant is suitable for substrate. Verify that sealant is paintable if painted finish is indicated.
- C. Protect materials surrounding work of this Section from damage or disfiguration.

3.3 INSTALLATION

- A. Install sealant in accordance with manufacturer's published instructions.
- B. Prime or seal joint surfaces where recommended by sealant manufacturer. Do not allow primer or sealer to spill or migrate onto adjoining surfaces.
- C. Install backer rod and bond breaker tape where required by manufacturer.
- D. Install preformed compressible and non-compressible fillers in accordance with manufacturer's published instructions.
- E. Install sealants to depths recommended by sealant manufacturer in uniform, continuous ribbons free of air pockets, foreign embedded matter, ridges, and sags, "wetting" joint bond surfaces equally on both sides.
- F. Tool joints concave unless shown otherwise. Where horizontal joints are between a horizontal surface and a vertical surface, fill joint to form slight cove so that joint will not trap moisture and foreign matter. Dry tool joints. Do not use soap, water, or solvent to tool joints.
- G. Epoxy Floor Joint Sealant: Install sealant at floor construction and control joints in accordance with manufacturer's published instructions and initially under manufacturer's supervision.

3.4 CURING

- A. Cure sealants in compliance with manufacturer's published instructions.

3.5 CLEANING

- A. Remove excess and spillage of sealants promptly as the work progresses, using materials and methods as recommended by sealant and substrate manufacturers. Clean adjoining surfaces to eliminate evidence of spillage without damage to adjoining surfaces or finishes.

3.6 SEALANT SCHEDULE

- A. Exterior Joints:
1. Perimeters of exterior openings where frames and other penetrations meet exterior facade of building: precast concrete, brick, CMU, polymer reinforced concrete.
 - a. Sealant Urethane Type 2
 - b. Sealant Silicone Type 1 (for prefinished materials only)
 2. Coping joints, coping-to-facade joints, cornice and wash, or horizontal surface joints not subject to foot or vehicular traffic.
 - a. Sealant Urethane Type 2
 - b. Sealant Urethane Type 4
 - c. Sealant Silicone Type 1 (for prefinished materials only)
 3. Exterior joints in horizontal wearing and non-wearing surfaces.
 - a. Sealant No. Urethane Type 1
 - b. Sealant No. Urethane Type 3
 - c. Preformed Compressible & Non-Compressible Filler Type 1
 4. Painted metal lap or flashing joints.
 - a. Sealant Silicone Type 1
- B. Interior Joints:
1. Seal interior perimeters of exterior openings.
 2. Perimeters of interior hollow metal and aluminum frames.
 3. Joints at intersection of exterior masonry walls and interior gypsum board partitions.
 4. For all of the above interior joints:
 - a. Sealant Urethane Type 2
 - b. Sealant Urethane Type 4
 - c. Sealant Silicone Type 1 (for prefinished materials only)
 5. Exposed interior control joints in drywall and concealed joints.
 - a. Sealant Acrylic, Latex, Type 1
 - b. Sealant Acoustical Type 1
 - c. Sealant Acoustical Type 3
 - d. Sealant Butyl Type 1
 6. Interior non-moving joints, including control, contraction, or construction joints, in interior floor slabs exposed to heavy duty traffic.
 7. Painted metal lap joints.
 - a. Sealant Silicone Type 1

END OF SECTION

USPS CSF Specifications issued: 10/1/2020
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SECTION 099100

PAINTING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Surface preparation and field application of paints and finishes for interior and exterior surfaces.
 - 2. Schedule of Items to be painted.
 - 3. Exterior painting and finishing schedule.
 - 4. Interior painting and finishing schedule.
- B. Related Documents: The Contract Documents, as defined in Section 011000 - Summary of Work, apply to the Work of this Section. Additional requirements and information necessary to complete the Work of this Section may be found in other Documents.

1.2 REFERENCES

- A. American Society for Testing and Materials (ASTM):
 - 1. ASTM E 84 - Test Method for Surface Burning Characteristics of Building Materials.

1.3 SUBMITTALS

- A. Section 013300 - Submittal Procedures: Procedures for submittals.
 - 1. Product Data: Submit product data for each type of paint specified.
 - a. Technical data sheets indicating manufacturer's catalog number, paint type description, and VOC content.
 - b. Painting Schedule listing surfaces to be painted with cross reference to the specific painting and finishing system and application. Identify each paint material by manufacturer's catalog number and general classification.
 - 2. Samples: Submit color brush-out sample for each paint color and sheen specified.
 - a. Three samples on 8 1/2-inch x 11-inch card stock for color and sheen verification.
 - b. Identify each sample by paint manufacturer, paint type, color, and sheen.
 - 3. Assurance/Control Submittals:
 - a. Test Reports: Submit manufacturer's Material Safety Data Sheets (MSDS) for each paint type proposed.

1.4 QUALITY ASSURANCE

- A. Applicator Qualifications: Company specializing in performing Work of this Section with minimum five years documented experience.
- B. Regulatory Requirements:
 - 1. Surface Burning Characteristics in Accordance with ASTM E-84 for Class I or A finish:
 - a. Flame Spread (Non-Combustible Surfaces): Less than 25.
 - b. Smoke Density (Non-Combustible Surfaces): Less than 450.

2. Provide paint and coating materials that conform to Federal, State, and Local restrictions for Volatile Organic Compounds (VOC) content.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Section 016000 - Product Requirements: Transport, handle, store, and protect products.
- B. Deliver paint materials in sealed original labeled containers, bearing 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/or reducing.
- C. 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 published instructions.
- D. Prevent fire hazards and spontaneous combustion.

1.6 PROJECT CONDITIONS OR SITE CONDITIONS

- A. Environmental Requirements:
 1. Apply paint finishes only when moisture content of surfaces is within manufacturer's acceptable ranges for type of finish being applied.
 2. Surface temperatures or surrounding air temperature to be above 40 degrees F before applying alkyd finishes; above 45 degrees F for interior latex, and 50 degrees F for exterior latex work. Minimum for varnish and transparent finishes is 65 degrees F.
 3. Provide continuous ventilation and heating facilities to maintain temperatures above 45 degrees F for 24 hours prior to, during and 48 hours after application of finishes.
 4. Do not apply paint in areas where dust is being generated.
 5. Provide lighting level in areas being painted of 80-foot candles measured mid-height at substrate surface.

1.7 MAINTENANCE

- A. Section 017704 - Closeout Procedures and Training: Procedures for closeout submittals.
- B. Extra Materials:
 1. Provide one gallon of each color, type and sheen to USPS Project Manager.
 2. Label each container with color, type, texture, room locations, in addition to the manufacturer's label.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Subject to compliance with project requirements, manufacturers offering specified items which may be incorporated in the work include the following:
 1. Benjamin Moore and Company, Montvale, NJ (201) 573-9600.
 2. Devoe (ICI), Cleveland, OH (888) 681-6353.
 3. Glidden (ICI), Cleveland, OH (888) 681-6353.
 4. Pittsburgh Paints, Pittsburgh, PA (800) 441-9695.

5. Sherwin-Williams Company, Cleveland, OH (800) 321-8194.

B. Section 016000 - Product Requirements: Product options and substitutions. Substitutions: Permitted.

2.2 MATERIALS

A. Paints:

1. Manufacturer's "Best Grade" for each type specified.
2. Ready-mixed; pigments fully ground maintaining a soft paste consistency, capable of readily and uniformly dispersing to a complete homogeneous mixture.
3. Providing good flowing and brushing properties and be capable of drying or curing free of streaks or sags.
4. VOC limits (g/L) for exterior and interior paint applications:
 - a. Exterior- Steel-Shop Primed
 - 1) Top Coat – Non-Flat: 150
 - 2) Top Coat - Gloss: 250
 - b. Exterior- Steel - Galvanized
 - 1) Primer Coat: 200
 - 2) Top Coat - Non-Flat: 150
 - 3) Top Coat - Gloss: 250
 - c. Interior Wood – Transparent
 - 1) Stain: 250
 - 2) Varnish: 350
 - d. Interior Concrete, Concrete Block
 - 1) Block filler: 300
 - 2) Top Coat – Flat: 100
 - 3) Top Coat – Non-Flat: 150
 - 4) Top Coat – Gloss: 250
 - e. Interior Steel – Unprimed
 - 1) Rust Prime Coat: 400
 - 2) Top Coat – Non-Flat: 150
 - 3) Top Coat – Gloss: 250
 - f. Interior Steel – Primed
 - 1) Top Coat – Flat: 100
 - 2) Top Coat – Non-Flat: 150
 - 3) Top Coat – Gloss: 250
 - g. Interior Steel – Galvanized
 - 1) Top Coat – Non-Flat: 150
 - 2) Top Coat – Gloss: 250
 - h. Interior Plaster, Gypsum Board
 - 1) Undercoater: 200
 - 2) Top Coat - Flat: 100
 - 3) Top Coat – Non-Flat: 150
 - 4) Top Coat – Gloss: 250
 - i. Interior Exposed Structural Steel and Metal Deck
 - 1) Industrial Maintenance - Primer: 340
 - 2) Industrial Maintenance – Top Coat: 340

B. Primers and Undercoaters: Manufactured by same manufacturer as finish coat materials.

C. Paint Accessory Materials: Linseed oil, shellac, turpentine and other materials not specifically indicated herein but required to achieve the finishes specified of high quality and approved manufacturer.

2.3 EXTERIOR PAINT SYSTEMS

- A. Benjamin Moore:
 - 1. Ferrous Metal: Semi-Gloss, Water Base, Alkyd Primer/Acrylic Latex.
 - a. Primer: M04 Acrylic Metal Primer; MDF 2.0 mils.
 - b. Each Finish Coat: M29 DTM Acrylic Semi-Gloss; MDF 2.0 mils.
 - 2. Galvanized Metal: Semi-Gloss, Water Base, Alkyd Primer/Acrylic Latex.
 - a. Primer: M04 Acrylic Metal Primer; MDF 2.0 mils.
 - b. Each Finish Coat: M29 DTM Acrylic Semi-Gloss; MDF 2.0 mils.
- B. Devoe (ICI):
 - 1. Ferrous Metal: Semi-Gloss, Water Base, Alkyd Primer/Acrylic Latex.
 - a. Primer: Mirrolac W/B DTM Primer DP85XX.
 - b. Each Finish Coat: Mirrolac W/B Semi-Gloss Enamel DP83XX.
 - 2. Galvanized Metal: Semi-Gloss, Water Base, Alkyd Primer/Acrylic Latex.
 - a. Primer: Mirrolac W/B DTM Primer, DP85XX.
 - b. Each Finish Coat: Mirrolac W/B Semi-Gloss Enamel DP83XX.
- C. Pittsburgh:
 - 1. Ferrous Metal: Semi-Gloss, Water Base, Alkyd Primer/Acrylic Latex.
 - a. Primer: 90-709 DTM Interior/Exterior Primer; MDF 3.0 mils.
 - b. Each Finish Coat: 90-474 Acrylic Enamel Satin; MDF 3.0 mils.
 - 2. Galvanized Metal: Semi-Gloss, Water Base, Alkyd Primer/Acrylic Latex.
 - a. Primer: 90-709 DTM Interior/Exterior Primer; MDF 3.0 mils.
 - b. Each Finish Coat: 90-474 Acrylic Enamel Satin; MDF 3.0 mils.
- D. Sherwin-Williams:
 - 1. Ferrous Metal: Semi-Gloss, Low VOC, Alkyd Primer/Acrylic Latex.
 - a. Primer: Pro-Cryl Universal Water-Based Primer, B66-310, MDF 3.0 mils.
 - b. Each Finish Coat: DTM Acrylic B66 Series; MDF 3.0 mils.
 - 2. Galvanized Metal: Semi-Gloss, Water Base, Alkyd Primer/Acrylic Latex.
 - a. Primer: Pro-Cryl Universal Water Based Primer, B66-310, MDF 3.0 mils.
 - b. Each Finish Coat: DTM Acrylic B66 Series; MDF 3.0 mils.

2.4 INTERIOR PAINT SYSTEMS

- A. Benjamin Moore:
 - 1. Gypsum Board: Eggshell, Water Base, Acrylic Latex.
 - a. Primer: 284 Moorecraft Superhide Interior Latex Primer/Undercoater; MDF 1.5 mils.
 - b. Each Finish Coat: Moorecraft Super-Hide Eggshell 286.
 - 2. Masonry: Eggshell, Water Base, Acrylic Latex.
 - a. Primer: Moorecraft Super Hide Interior/Exterior Latex Blockfiller 285; MDF 11.0 mils.
 - b. Each Finish Coat: Moorecraft Super-Hide Eggshell 286.
 - 3. Metal: Satin, Water Base, Acrylic Latex.
 - a. Each Finish Coat: Moorecraft Super-Hide Eggshell 286.
 - 4. Wood and Wood Doors: Satin, Water Base, Acrylic Latex.
 - a. Primer: 253 Moorecraft Latex Enamel Undercoater and Primer Sealer; 2.0 mils.
 - b. Each Finish Coat: Moorecraft Super-Hide Eggshell 286.
 - 5. Concrete: Semi-Gloss, Water Base, Acrylic Latex.
 - a. Primer: Moorecraft Super Hide Interior/Exterior Latex Blockfiller 285; MDF 11.0 mils.
 - b. Each Finish Coat: 276 Moorecraft Acrylic Latex; MDF 1.5 mils.
 - 6. Ferrous Metal: Semi-Gloss, Water Base, Acrylic Latex.
 - a. Primer: M04 Acrylic Metal Primer; MDF 2.0 mils.
 - b. Each Finish Coat: 276 Moorecraft Acrylic Latex; MDF 1.5 mils.

7. Wood Cabinets and Wood Shelves: Semi-Gloss, Water Base, Acrylic Latex.
 - a. Enamel Undercoater: Moorecraft Acrylic Latex Underbody 269.
 - b. Each Finish Coat: 276 Moorecraft Acrylic Latex; MDF 1.5 mils.
 8. Wood Bumpers:
 - a. Stain: 234 Benwood Penetrating Stain.
 - b. Benwood Stays Clear Acrylic Polyurethane: 423 Benwood Low Lustre Polyurethane.
 - c. Benwood Stays Clear Acrylic Polyurethane: 422 Benwood High-Gloss Polyurethane.
- B. Devoe (ICI):
1. Gypsum Board: Eggshell, Water Base, Acrylic Latex.
 - a. Primer: Wonder-Tones Primer DR50801; MDF 1.5 mil.
 - b. Each Finish Coat: Wonder-Tone Eggshell Enamel DR34XX; MDF 1.5 mil.
 2. Masonry: Eggshell, Water Base, Acrylic Latex.
 - a. Primer: Bloxfil 4000 Interior/Exterior Heavy-Duty Acrylic Block Filler 4000-1000; 7.0-14.5 MDF
 - b. Each Finish Coat: Wonder-Tone Eggshell Latex Enamel DR34XX; MDF 1.5 mil.
 3. Metal: Satin, Water Base, Acrylic Latex.
 - a. Each Finish Coat: Mirrolac W/B Semi-Gloss Enamel DP83XX; MDF 1.5 mil.
 4. Wood and Wood Doors: Satin, Water Base, Acrylic Latex.
 - a. Primer: Wonder-Prime DR51701; MDF 1.5 mil.
 - b. Each Finish Coat: Devflex 4216HP High Performance Waterborne Acrylic Semi-Gloss Enamel; MDF 1.5 mil.
 5. Concrete: Semi-Gloss, Water Base, Acrylic Latex.
 - a. Primer: Bloxfil 4000 Interior/Exterior Heavy-Duty Acrylic Block Filler 4000-1000; 7.0-14.5 MDF
 - b. Each Finish Coat: Mirrolac W/B Semi-Gloss Latex Enamel DP83XX; MDF 1.5 mil.
 6. Ferrous Metal: Semi-Gloss, Water Base, Acrylic Latex.
 - a. Primer: Mirrolac W/B DTM Primer DP85XX; MDF 1.5 mil.
 - b. Each Finish Coat: Mirrolac W/B Semi-Gloss DP83XX.
 7. Wood Cabinets and Wood Shelves: Semi-Gloss, Water Base, Acrylic Latex.
 - a. Primer/Sealer: Wonder-Prime DR51701; MDF 1.5 mil.
 - b. Each Finish Coat: Devflex 4216HP High Performance Waterborne Acrylic Semi-Gloss Enamel; MDF 1.5 mil.
 8. Wood Bumpers:
 - a. Stain: Penchrome Interior Solventborne Semi-Transparent Oil Stain, DF 2XX; MDF 1.5 mil.
 - b. Clear Polyurethane: Penchrome Interior 100% Acrylic Finishes, DF 400 Satin; MDF 1.5 mil.
- C. Glidden (ICI):
1. Gypsum Board: Eggshell, Water Base, Acrylic Latex.
 - a. Primer: ProMaster Interior Latex Primer-Sealer MP-5111; MDF 1.5 mil.
 - b. Each Finish Coat: ProMaster Interior Latex Eggshell MP-6800; MDF 1.5 mil.
 2. Masonry: Eggshell, Water Base, Acrylic Latex.
 - a. Primer: Bloxfil 4000 Interior/Exterior Heavy Duty Acrylic Block Filler 4000-1000; MDF 11 mil
 - b. Each Finish Coat: ProMaster Interior Latex Eggshell MP-6800; MDF 1.5 mil.
 3. Metal: Satin, Water Base, Acrylic Latex.
 - a. Each Finish Coat: Devflex 4214HP High Performance Waterborne Acrylic Semi-Gloss Enamel; MDF 1.5 mil.
 4. Wood and Wood Doors: Satin, Water Base, Acrylic Latex.
 - a. Primer: Prime Interior 100% Acrylic Multi-Purpose Latex Stain Killer, PC 1000; MDF 1.5 mil.
 - b. Each Finish Coat: Devflex 4216 HP High Performance Waterborne Acrylic Semi-Gloss Enamel; MDF 1.5 mil.

5. Concrete: Semi-Gloss, Water Base, Acrylic Latex.
 - a. Primer: Bloxfil 4000 Interior/Exterior Heavy Duty Acrylic Block Filler 4000-1000; MDF 11 mil
 - b. Each Finish Coat: Devflex 4216 HP High Performance Waterborne Acrylic Semi-Gloss Enamel; MDF 1.5 mil.
 6. Ferrous Metal: Semi-Gloss, Water Base, Acrylic Latex.
 - a. Primer: Devflex 4020 PF Direct to Metal Primer & Flat Finish; MDF 1.5 mil.
 - b. Each Finish Coat: Devflex 4216 HP High Performance Waterborne Acrylic Semi-Gloss Enamel; MDF 1.5 mil.
 7. Wood Cabinets and Wood Shelves: Semi-Gloss, Water Base, Acrylic Latex.
 - a. Primer/Sealer: Prime Interior 100% Acrylic Multi-Purpose Latex Stain Killer, PC 1000; MDF 1.5 mil.
 - b. Each Finish Coat: Devflex 4216 HP High Performance Waterborne Acrylic Semi-Gloss Enamel; MDF 1.5 mil.
 8. Wood Bumpers:
 - a. Stain: DF200 semi-transparent; MDF 1.5 mil.
 - b. Clear Polyurethane: Penchrome Interior 100% Acrylic Finishes, DF 400 Satin; MDF 1.5 mil.
- D. Pittsburgh:
1. Gypsum Board: Eggshell, Water Base, Acrylic Latex.
 - a. Primer: 6-2 Speedhide Latex Sealer; MDF 1.0 mils.
 - b. Each Finish Coat: 6-411 Speedhide Eggshell Latex; MDF 1.5 mils.
 2. Masonry: Eggshell, Water Base, Acrylic Latex.
 - a. Primer: 6-2 Speedhide Latex Sealer; MDF 1.0 mils.
 - b. Each Finish Coat: 6-411 Speedhide Eggshell Latex; MDF 1.5 mils.
 3. Metal: Satin, Water Base, Acrylic Latex.
 - a. Each Finish Coat: 90-474 DTM Acrylic Satin; MDF 1.5 mils.
 4. Wood and Wood Doors: Satin, Water Base, Acrylic Latex.
 - a. Primer: 6-855 Interior Water Base Undercoater; MDF 1.5 mils.
 - b. Each Finish Coat: 90-474 DTM Acrylic Satin; MDF 1.5 mils.
 5. Concrete: Semi-Gloss, Water Base, Acrylic Latex.
 - a. Primer: 6-7 Speedhide Block Filler; MDF 6.0 - 12.0 mils.
 - b. Each Finish Coat: 6-500 Speedhide Semi-Gloss Latex; MDF 1.2 mils.
 6. Ferrous Metal: Semi-Gloss, Water Base, Acrylic Latex.
 - a. Each Finish Coat: 90-474 DTM Acrylic Satin; MDF 1.5 mils.
 7. Wood Cabinets and Wood Shelves: Semi-Gloss, Water Base, Acrylic Latex.
 - a. Primer/Sealer: 6-855 Interior Water Base Undercoater; MDF 1.5 mils.
 - b. Each Finish Coat: 90-474 DTM Acrylic Satin; MDF 1.5 mils.
 8. Wood Bumpers:
 - a. Stain: 77-560 Interior Oil Stain
 - b. Clear Polyurethane: 77-89 Interior Oil Satin Polyurethane
- E. Sherwin Williams:
1. Gypsum Board: Low VOC, Eg-shell, Water Base, Acrylic Latex.
 - a. Primer: Harmony Latex Primer, MDF 1.6 mils.
 - b. Each Finish Coat: Harmony Latex Eg-Shel, MDF 1.6 mils.
 2. Masonry: Semi-Gloss, Water Base, Acrylic Latex.
 - a. Primer: PrepRite Interior/Exterior Block Filler, B25W25; MDF 10.0 mils
 - b. Each Finish Coat: ProMar 200 Zero VOC Interior Latex Egg Shell: MDF 1.5 mils.
 3. Metal: Semi-Gloss, Water Base, Acrylic Latex.
 - a. Each Finish Coat: Pro Industrial DTM Acrylic S-G, B66-1151 Series MDF 3.0 mils.
 4. Wood and Wood Doors: Semi-Gloss, Water Base, Acrylic Latex.
 - a. Primer: Wall & Wood Primer, B28W08111, MDF 1.6 mils.

- b. Each Finish Coat: Pro Industrial Waterborne Alkyd Urethane S-G B53-1150 Series, MDF 1.4 mils.
- 5. Concrete: Semi-Gloss, Water Base, Acrylic Latex.
 - a. Primer: Loxon Concrete & Masonry Primer; MDF 10.0 mils.
 - b. Each Finish Coat: Pro Industrial Waterborne Alkyd Urethane S-G B53-1150 Series, MDF 1.4 mils.
- 6. Ferrous Metal: Semi-Gloss, Water Base, Acrylic Latex.
 - a. Primer: Pro-Cryl Universal Water Based Primer, B66-1310, MDF 3.0 mils.
 - b. Each Finish Coat: Pro Industrial DTM Acrylic S-G, B66-01151 Series; MDF 3.0 mils.
- 7. Wood Cabinets and Wood Shelves: Semi-Gloss, Water Base, Acrylic Latex.
 - a. Primer/Sealer: Wall & Wood Primer, B28W08111, MDF 1.6 mils.
 - b. Each Finish Coat: Pro Industrial Waterborne Alkyd Urethane S-G B53-1150 Series, MDF 1.4 mils.
- 8. Wood Bumpers:
 - a. One Coat: Stain: Oil Stain, A48 Series.
 - b. Each Coat: Clear Polyurethane: Wood Classic Waterborne Polyurethane Varnish; A68 series MDF 1.0 mil.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Section 017300 - Execution: Verification of existing conditions before starting work.
- B. Verification of Conditions: Verify that field measurements, surfaces, substrates and conditions are as required, and ready to receive Work.
- C. Report in writing to USPS Project Manager prevailing conditions that will adversely affect satisfactory execution of the Work of this Section. Do not proceed with Work until unsatisfactory conditions have been corrected.
- D. By beginning Work, Contractor accepts conditions and assumes responsibility for correcting unsuitable conditions encountered at no additional cost to the United States Postal Service.

3.2 PREPARATION

- A. Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, and conditions otherwise detrimental to formation of a durable paint film.
- B. Perform preparation and cleaning procedures in accordance with paint manufacturer's published instructions for each particular substrate condition.
 - 1. Provide barrier coats over incompatible primers or remove and reprime as required.
 - 2. Remove hardware, hardware accessories, machined surfaces, plates, lighting fixtures, and similar items in place and not to be painted or provide surface applied protection prior to surface preparation and painting operations. Reinstall all removed items after completion of paint work.
 - 3. Clean surfaces to be painted before applying paint of surface treatment. Remove oil and grease prior to mechanical cleaning.
- C. Ferrous Metals: Clean ferrous surfaces that are not galvanized or shop-coated, of oil, grease, dirt, loose mill scale and other foreign substances by solvent or mechanical cleaning.
 - 1. Touch-up shop-applied prime coats, where damaged or bare. Clean and touch-up with same type shop primer.

- D. Galvanized Surfaces: Clean free of oil and surface contaminants with non-petroleum-based solvent. Apply coat of etching primer if required by paint manufacturer.
- E. Cementitious Materials: Prepare cementitious surfaces to be painted by removing efflorescence, chalk, dust, dirt, grease, oils, and by roughening as required to remove glaze.
 - 1. Determine alkalinity and moisture content of surfaces to be painted by performing appropriate tests.
 - a. If surfaces are found to be sufficiently alkaline to cause blistering and burning of finish paint, correct condition before application of paint.
 - 2. Do not paint over surfaces where moisture content exceeds that permitted in manufacturer's printed instructions.
 - 3. Clean floor surfaces scheduled to be painted with a commercial solution of muriatic acid, or other etching cleaner. Flush floor with clean water to neutralize acid and allow to dry before painting.
- F. Wood: Clean wood surfaces to be painted of dirt, oil, and other foreign substances with scrapers, mineral spirits, and sandpaper, as required. Sandpaper smooth those finished surfaces exposed to view and dust off. Scrape and clean small, dry, seasoned knots and apply a thin coat of white shellac or other recommended knot sealer, before application of priming coat. After priming, fill holes, and imperfections in finish surfaces with putty or plastic wood-filler. Sandpaper smooth when dried.
 - 1. Prime, stain, or seal wood required to be job-painted immediately upon delivery to job. Prime edges, ends faces, undersides, and backsides of such wood, including cabinets and counters.
 - 2. Seal tops, bottoms, and cut-outs with a heavy coat of varnish or equivalent sealer immediately upon delivery to job.
- G. Gypsum Board: Fill minor defects with filler compound. Spot prime defects after repair.

3.3 APPLICATION

- A. Apply paint products in accordance with manufacturer's published instructions using application procedures approved for the particular application and substrate to the specified Minimum Dry Film Thickness (MDF). Apply each coat to uniform finish.
- B. Apply each coat slightly darker than preceding coat unless otherwise approved by USPS Project Manager. Sand lightly between coats to achieve specified finish.
- C. Do not apply finishes on surfaces that are not dry.
- D. Number of coats and film thickness required is same regardless of application method. Do not apply succeeding coats until the previous coat has cured as recommended by the manufacturer.
- E. Apply additional coats when undercoats, stains, or other conditions show through final coat until paint film is of uniform finish, color, and appearance. Surfaces, including edges, corners, crevices, welds, and exposed fasteners to receive minimum dry film thickness equivalent to that of flat surfaces.
- F. Minimum Coating Thickness: Apply materials at not less than manufacturer's recommended spreading rate. Provide minimum dry film thickness (MDF) of the entire coating system as indicated in Painting and Finishing Schedule at end of this Section.
- G. Prime Coats: Before application of finish coats, apply a prime coat of material as recommended by manufacturer to material scheduled to be painted or finished that has not been shop primed. Recoat primed and sealed surfaces where evidence of suction spots or unsealed areas in first coat appears, to assure a finish coat with no burn through or other defects due to insufficient sealing.

- H. Pigmented (Opaque) Finishes: Completely cover to provide an opaque, smooth surface of uniform finish, color, appearance, and coverage. Cloudiness, spotting, laps, brush marks, runs, sags, or other surface imperfections will not be acceptable.
- I. Completed Work: Match Contracting Officer approved field samples for color and sheen.

3.4 MECHANICAL AND ELECTRICAL EQUIPMENT

- A. Clean or replace identification markings on mechanical or electrical equipment when painted over or spattered.
- B. Paint both sides and edges of plywood backboards for electrical equipment before installing backboards and mounting equipment on them.
- C. Paint items indicated in the General Notes on Sheet A1.01, Safety Yellow.

3.5 FIELD QUALITY CONTROL

- A. Section 014000 - Quality Requirements: Field testing and inspection.
- B. Inspect painting and coating application for scheduled material, color, sheen, specified thickness (MDF), and coverage.

3.6 CLEANING

- A. As work proceeds and upon completion, promptly remove paint where spilled, splashed, or spattered.
- B. During progress of work keep premises free from any unnecessary accumulation of tools, equipment, surplus materials, and debris.
- C. Collect waste, cloths, and material which may constitute a fire hazard, place in closed metal containers and remove daily from site.
- D. Upon completion of work leave premises neat and clean.

3.7 PROTECTION

- A. Protect other surfaces from paint and damage. Repair damage as a result of inadequate or unsuitable protection.

3.8 COLOR SCHEDULE

- A. Any proposal to substitute a color is to include manufacturer's certification that the color matches the specified Munsell notation. Similarly, paint colors proposed for P-4 and P-5 must include the manufacturer's certification that the color matches the specified PMS number.
- B. Paint colors on existing surfaces that are disturbed by construction and on materials matching existing adjacent items to match the color and sheen of the existing paint. Verify with A/E on site, prior to submitting paint colors.

- C. If the colors listed below are to be used, the location of each color needs to be submitted with the color samples.
- D. P-1 White (Munsell notation: #5Y 9.25/0.5NN)
 - 1. Benjamin Moore: #968.
 - 2. Glidden (ICI): #50YY 83/057.
 - 3. Pittsburgh: #512-1, Winter Mood.
 - 4. Sherwin-Williams (S-W): #SW 7636, Origami White.
- E. P-2 Light Gray (Munsell notation: #N8.0)
 - 1. Benjamin Moore: #1612, Pelican Gray.
 - 2. Devoe (ICI): #1H51G, Catkin.
 - 3. Glidden (ICI): #50BG 62/007.
 - 4. Sherwin-Williams: #SW7662, Evening Shadow
- F. P-3 (Not Used)
- G. P-4 Red (Match PMS 485C "Postal Red") Custom Match
- H. P-5 Blue (Match PMS 301C "Postal Blue") Custom Match
- I. P-6 Medium Gray (Munsell notation: #10B7/1)
 - 1. Sherwin Williams: SW#1232, Dublin Gray (custom mix)
- J. P-7 Semi-gloss Black

3.9 SCHEDULE OF ITEMS TO BE PAINTED

- A. Painted finishes shall be provided for, but not limited to, the following items. Refer to Drawings and Paint Color Schedule at end of this Section for designated finishes and colors of areas.
 - 1. Exterior: All exterior surfaces including, but not limited to:
 - a. Metal railings.
 - b. Stair nosings.
 - 2. Interior: All interior surfaces as scheduled on Drawings including, but not limited to:
 - a. Metal opening frames and trim.
 - b. Gypsum wallboard.
 - c. Exposed structure columns.
 - d. Exposed wood.
- B. Do not paint the following items:
 - 1. Pre-finished items:
 - a. Aluminum, brass, bronze, stainless steel, and chrome plated steel.
 - b. Pre-finished items, such as toilet compartments, acoustical ceiling materials, mechanical, and electrical equipment.
 - c. UL, FM, and other code-required labels.
 - d. Equipment identification, performance rating, and name plates.
 - e. Finish hardware.
 - f. Factory finished metal wall panels, metal wall panel trim, and metal gravel stops.
 - 2. Exposed items:
 - g. Exposed mechanical ductwork, hangers, and supports.
 - h. Exposed piping and conduit, hangers and supports.
 - i. Exposed fire protection piping, hangers and supports.
 - j. Exposed roof structure.
 - k. Exposed roof deck.

3.10 PAINTING AND FINISHING SCHEDULE

A. Interior Paint Systems:

1. Interior Gypsum Wallboard:
 - a. 1 coat Latex Wall Primer.
 - b. 1 coat Latex Eggshell Enamel
2. Interior Gypsum Wallboard Painted (to match existing):
 - a. 1 coat Latex Wall Primer
 - b. 5 coats Latex Eggshell Enamel
3. Interior Metal:
 - a. 2 coats Latex Satin
4. Interior Wood (painted):
 - a. 1 coat Enamel Undercoat
 - b. 2 coats Alkyd Semi-Satin Enamel
5. Ferrous Metals
 - a. Touch up Prime Coat.
 - b. Two tinted coats of Alkyd Enamel Semi-Gloss.

B. Exterior Paint Systems:

1. Galvanized Metal:
 - a. Touch up Prime Coat.
 - b. Two tinted coats Exterior Alkyd Enamel Semi-Gloss Enamel.
2. Ferrous Metals:
 - a. Touch up Prime Coat.
 - b. Two tinted coats Exterior Alkyd Enamel Semi-Gloss Enamel.

END OF SECTION

USPS CSF Specifications issued: 10/1/2020
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SECTION 133423.11

FABRICATED ELECTRICAL HOUSES

PART 1 - GENERAL

1.1 SUMMARY

- A. Scope: Provide labor, material, equipment, related services, and supervision required, including, but not limited to, manufacturing, fabrication, configuration and installation for a fabricated electrical house (also identified as eHouse or E-House), as required for the complete performance of the Work, as shown on the Drawings, as specified herein.
- B. The supplier shall furnish, install, interconnect and test the equipment and materials specified herein, as well as any equipment specified in any related documents.
- C. Related Sections: Related sections include, but shall not be limited to, the following:
 - 1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
 - 2. Applicable general requirements for electrical Work specified within Division 13 Specification Sections apply to this Section.
 - 3. Applicable general requirements for electrical Work specified within Division 26 Specification Sections apply to this Section.

1.2 REFERENCES

- A. General, Publications: The publications listed below form a part of this Specification to the extent referenced. The publications are referred to in the text by the basic designation only. The edition/revision of the referenced publications shall be the latest date as of the date of the Contract Documents, unless otherwise specified.
 - 1. American National Standards Institute (ANSI)
 - a. ANSI C80.1, "Standard for Electric Rigid Steel Conduit"
 - 2. American Society of Civil Engineers (ASCE)
 - a. ASCE 7, "Minimum Design Loads For Buildings and Other Structures"
 - 3. American Society for Testing and Materials (ASTM)
 - a. ASTM A 36, "Standard Specification for Carbon Structural Steel"
 - b. ASTM A 572, "Standard Specification for High-Strength Low-Alloy Columbium-Vanadium Structural Steel"
 - c. ASTM C 177, "Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus"
 - d. ASTM C 518, "Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus"
 - e. ASTM D 2247, "Standard Practice for Testing Water Resistance of Coatings in 100% Relative Humidity"
 - 4. American Welding Society (AWS)
 - a. AWS D1.1, "Structural Welding Code – Steel"
 - b. AWS D1.2, "Structural Welding Code – Aluminum"
 - c. AWS D1.3, "Structural Welding Code – Sheet Steel"
 - 5. Federal Specifications (Fed. Spec.)
 - a. TT-C-520B, "Coating Compounds, Bituminous, Solvent Type, Underbody"
 - 6. Institute of Electrical and Electronics Engineers (IEEE)
 - a. IEEE C37.2.2, "Guide for Protective Relay Applications to Power System Buses"
 - 7. International Code Council (ICC):
 - a. ICC IBC, "International Building Code"

8. National Electrical Manufacturers Association (NEMA)
 - a. NEMA 250, "Enclosures for Electrical Equipment (1000 V Maximum)"
9. National Fire Protection Agency (NFPA)
 - a. NFPA 70, National Electrical Code® (NEC)"
 - b. NFPA 496, "Standard for Purged and Pressurized Enclosures for Electrical Equipment"
10. Occupational Safety and Health Administration (OSHA)
 - a. OSHA 1910, "Occupational Safety and Health Standards"
11. Society for Protective Coatings (SSPC)
 - a. SSPC-SP 3, "Surface Preparation Standards and Specifications (Power Tool Cleaning)"
 - b. SSPC-SP 1, "Surface Preparation Standards and Specifications (Solvent Cleaning)"
12. Steel Door Institute (SDI)
 - a. SDI-100, "Specifications for Standard Steel Doors and Frames"
13. Underwriters Laboratories, Inc. (UL):
 - a. UL 50, "Enclosures for Electrical Equipment, Non-Environmental Considerations"
 - b. UL 508, "Standard for Industrial Control Equipment"

1.3 DEFINITIONS

- A. Unless specifically defined within the Contract Documents, the words or acronyms contained within this specification shall be as defined within, or by the references listed within this specification, the Contract Documents, or, if not listed by either, by common industry practice.
 1. E-House or eHouse: fabricated electrical house with electrical distribution equipment and controls installed and wired at the factory.

1.4 SUBMITTALS

- A. General: Submittals shall be in accordance with the requirements of Section 013300 Submittal Procedures and Section 260500 Electrical Requirements, in addition to those specified herein.
 1. Submit sufficient information to determine compliance with the Contract Documents. Identify submittal data with the specific equipment tags and/or service descriptions to which they pertain. Submittal data shall be clearly marked to identify the specific model numbers, options, and features of equipment and work proposed.
 2. Deviations from the Contract Documents shall be indicated within the submittal. Each deviation shall reference the corresponding drawing or specification number, show the Contract Document requirement text and/or illustration, and shall be accompanied by a detailed written justification for the deviation.
 3. Submit required product data and shop drawings specific to each product and accessory proposed. Submit the following information:
 - a. E-house, including:
 - 1) Overall building plan
 - 2) Building elevations
 - 3) Building base skid details
 - 4) Stairs, landings, and dunnage connection details
 - 5) Floor plan and equipment dimensions
 - 6) Weights (including all equipment and accessories)
 - 7) Connection points and attachment details for structural steel connection to roof.
 - 8) Equipment layouts
 - 9) Conduit entry/exit locations to/from switchboards.
 - 10) Grounding system and connection points
 - 11) HVAC components including product data and mounting location.
 - b. Manufacturer's structural plans stamped and signed by a qualified professional structural engineer registered in Connecticut, including:
 - 1) E-house connections to building steel and dunnage
 - 2) Calculations showing compliance with adopted codes where the project is located.
 - c. Electrical Plans, including:
 - 1) Electrical notes.

- 2) Building electrical plan, showing conduit, cable tray, subfloor wireway, and any other means of wiring transit. Drawings shall also include conduit fill.
 - 3) Building services wiring diagrams.
 - 4) Grounding system connections plan.
 - 5) Interconnection wiring diagrams.
 - d. Structural & Electrical Drawings sealed by Professional Engineer licensed for the location of the installed eHouse
 - e. Bill of Material
 - f. Structural Calculations
 - g. Interconnecting Cable Schedule
 - h. Inspection & Test Plan
- B. Operation & Maintenance (O&M) manuals shall be provided in accordance with the minimum requirements specified in Section 017704 Operation and Maintenance Data, Section 260500 Electrical Requirements and additional requirements specified herein.
- 1. Submit required Operations & Maintenance data specific to each product and accessory proposed. In addition, include the following information:
 - a. Shop drawings and schedules updated to final as installed status
 - b. Inspection and Test Report

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Manufacturer shall be a firm engaged in the manufacture of specified products of types and sizes required, and whose products have been in satisfactory use in similar service for a minimum of ten years.
- 1. The manufacturer shall have a valid ISO 9001 certification and an applicable quality assurance system that is regularly reviewed and audited by a third-party registrar. Manufacturing, inspection, and testing procedures shall be developed and controlled under the guidelines of the quality assurance system.
 - 2. The manufacturer or their representative shall have service, repair, and technical support services available 24 hours 7 days a week basis.
- B. All work performed, and all materials used shall be in accordance with the National Electrical Code, and with applicable local regulations and ordinances. Process controllers, assemblies, materials, and equipment shall be listed and labeled by Underwriter's Laboratories or by a testing agency acceptable to authorities having jurisdiction and marked for intended use.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Prior to delivery to the Project site, ensure that installation space and conditions are suitable for the eHouse or suitable storage space or is available to store materials in a well-ventilated area protected from weather, moisture, soiling, extreme temperatures, humidity, and corrosive atmospheres. Materials shall be protected during delivery and storage and shall not exceed the manufacturer stated storage requirements. As a minimum, store indoors in clean, dry space with uniform temperature to prevent condensation. In addition, protect electronics from all forms of electrical and magnetic energy that could reasonably cause damage.
- B. Deliver materials to the Project site in supplier's or manufacturer's original wrappings and containers, labeled with supplier's or manufacturer's name, material or product brand name, and equipment tag number or service name as identified within the Contract Documents.
- C. Inspect and report any concealed damage or violation of delivery storage, and handling requirements to the Engineer.

1.7 WARRANTY

- A. General: Refer to Section 017704 - Closeout Procedures and Training.
- B. The manufacturer shall warrant products against defects in material and workmanship for 24 months from the date of commissioning or 36 months from the date of shipment, whichever comes first, provided that the manufacturer performs functional testing, commissioning and first parameter adjusting of equipment. During the warranty period the manufacturer shall repair or replace defective products. This warranty shall be in addition to any provided by the Contractor. The warranty shall exclude normal wear and tear under normal usage and any damage caused by abuse, modification, or improper maintenance by entities other than the manufacturer or its approved representative.
- C. Additional Owner Rights: The warranty shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to and run concurrent with other warranties made by the Contractor under requirements of the Contract Documents.

1.8 SPECIAL TOOLS AND SPARE PARTS

- A. The Contractor shall provide a recommended spare parts list with the following information provided as a minimum:
 - 1. Contact information for the closest parts stocking location to the Owner.
 - 2. Critical spare parts shall be identified as those parts being associated with long lead times and/or those being critical to the unit's operation.
 - 3. Maintenance spares shall be identified as being those parts required to regularly perform scheduled maintenance on the furnished equipment. These spares shall include, but shall not be limited to, consumable spares that are required to be exchanged during scheduled maintenance periods.
- B. Spare parts shall be provided for each type and size of unit installed. At a minimum, the following shall be provided:
 - 1. Provide the minimum spare parts recommended by the manufacturer.
 - 2. Provide 1 set of each type of power and control fuse installed within equipment
- C. Any manufacturer specific special tool, not normally found in an electrician's toolbox, required to remove and install recommended or furnished spare parts shall be furnished. At a minimum the following shall be provided:
 - 1. If available from manufacture and required to configure equipment, provide PC-based computer configuration software or smart mobile device app tool and a minimum of one communication interface cable for each type of cable required to connect the computer/device to the devices specified herein for configuration and programming.
 - 2. Electronic configuration files, in a media format acceptable by the Owner (e.g. CD, USB stick, etc.), updated to an as-installed and commissioned state.
- D. Spare parts shall be properly marked and packaged for long term storage. Printed circuit boards shall be provided in separate anti-static containers.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Square D™ Power-Zone™ Centers, by Schneider Electric.
- B. Acceptable Products: eHouses specified herein shall be the product of a single manufacturer. Products and manufacturers specified are to establish a standard of quality for design, function, materials, and appearance. Products shall be modified as necessary by the manufacturer for compliance with

requirements. Provide the following specified product and manufacturer without exception, unless approved as a substitute by addendum to the Contract Documents prior to the bid date:

1. Square D Power-Zone Centers by Schneider Electric
2. Eaton Integrated Power Assembly (IPA)
3. Siemens E-House – Totally Integrated Power (TIP)

2.2 GENERAL REQUIREMENTS

- A. Utilities: eHouse shall be constructed with the following pre-wired utilities:
1. Interior lights, Exterior lights, Light switches with receptacles located at each entrance door.
 2. Wiring inside the enclosure and for all utilities. Internal wiring shall run in exposed 3/4" minimum EMT. External wiring or wiring penetrating walls shall be in 3/4" minimum rigid galvanized conduit.
 3. Stainless-steel ground pads with lugs welded into the base on all corners and shipping splits.
 4. All convenience receptacles shall be UL Class A GFCI rated.
 5. Outside receptacles shall include weatherproof covers and shall be located near each door and within 25 feet of each HVAC unit.
 6. Egress lighting shall be installed to provide immediate light (for at least 90 minutes) upon failure of the normal power source and shall switch off automatically when power is restored. Fixtures shall be of the self-diagnostic type. Emergency egress lighting shall be connected to a dedicated non- GFCI receptacle adjacent to the fixture and supplied from the lighting circuit for that area.
- B. eHouse shall include the following wiring features:
1. All interconnecting power and control wiring shall be installed and connected before shipping.
 2. All utility and control wiring shall be 600 volt, stranded copper, minimum 12 AWG.
 3. All interconnecting wire shall be identified by sleeve-type wire markers at each end.
 4. If the eHouse is constructed with shipping splits, wiring between splits shall be terminated on terminal blocks.
 5. The supplier shall furnish all electrical distribution equipment necessary for the proper operation of building services within and without the building. The operating voltage of all distribution equipment shall be 120/208, three-phase. The primary side of any distribution transformers shall be 480 V, three-phase.
 6. The panelboard provided by the manufacturer shall include four spare 20amp, single pole circuit breakers.
- C. Grounding:
1. A 1/4" x 2" copper bar interior grounding loop shall be provided and connected to the exterior ground pads.
 2. All exposed noncurrent-carrying metal parts shall be electrically bonded to the power center grounding loop.
 3. The grounding system shall provide system and equipment grounding for all electrical equipment.
- D. HVAC: eHouse shall be supplied with a ventilated and/or climate controlled system (HVAC) including the following:
1. Split systems, wall-mounted.
 2. HVAC systems shall be engineered and designed for any required redundancy such as but not limited to N+1 or 100%.
 3. The basis for calculating heat load shall take into consideration all equipment load losses, equipment by supplier.
 4. The system shall be designed such that the sensible cooling capacity, NOT the total cooling capacity, will maintain an ambient temperature within the building of between 55°F winter and 80°F summer at design conditions. The system shall be provided with an electronic, automatic changeover thermostat.

2.3 FABRICATED ELECTRICAL HOUSES

- A. Building Style:

1. The eHouse shall be Interlocking panel type, including a steel beam base with galvanized, stainless steel or aluminum exterior wall panels formed to interlock with each other forming a self-framing system. Insulation shall be installed within the voids. Sheet metal interior wall liners shall be included.
- B. Finishing:
 1. The building shall be provided with a paint system per the following:
 - a. The skid shall be prepared to the appropriate SSPC standard (SSPC-1, SSPC-2, SSPC-3) for removal of rust and scale prior to painting. A 2-3 mil application of Zinc rich primer shall be provided
 - b. The floor shall be provided with a 2-3 mil application of "Red" epoxy iron oxide primer, followed by a 2-3 mil application of ANSI-61 gray epoxy, with a non-skid finish
 - c. The exterior and interior of the building shall be provided with a 0.3-0.6 mil application of a vinyl wash primer, followed by a 2-3 mil application of white epoxy paint
 2. The floor shall be a minimum of 1/4-inch H.R. ASTM-A36 minimum smooth steel plate, welded to the perimeter and longitudinal and/or transverse structural members of the skid. The floor loading shall be no less than 250 PSF.
 3. The floor shall be provided with gasketed floor cutouts where required for power and control cable entry/exit from the equipment. The cutouts shall be provided with 12 gauge galvanized or painted coverplates. See plans for conduit entry/exit plan.
 4. eHouse platforms and stairs shall be in accordance with OSHA 1910.

PART 3 - EXECUTION

3.1 GENERAL

- A. In addition to the requirements specified herein, execution shall be in accordance with the requirements of specification Section 260500 and Drawings.
- B. Examine equipment exterior and interior prior to installation. Report any damage and do not install any equipment that is structurally, moisture, or mildew damaged.
- C. Verification of Conditions: Examine areas and conditions under which the work is to be installed, and notify the Contractor in writing, with a copy to the Owner and the Engineer, of any conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected.
- D. Pre-Installation Conference: Prior to commencing the installation, an onsite pre-installation conference shall review the material selections, installation procedures, and coordination with other trades. Attendees shall include, but shall not be limited to, the Contractor, the Installer, manufacturer's representatives, and any trade that requires coordination with the work. Date and time of the pre-installation conference shall be acceptable to the Owner and the Engineer
- E. Beginning of the work shall indicate acceptance of the areas and conditions as satisfactory by the Installer.
- F. Install equipment in accordance with reviewed product data, final shop drawings, manufacturer's written instructions and recommendations, and as indicated on the Drawings.
- G. Provide final protection and maintain conditions in a manner acceptable to the manufacturer that shall help ensure that the equipment is without damage at time of acceptance.

3.2 FIELD QUALITY CONTROL

- A. Functional testing and first parameter adjusting shall be carried out in the factory, including inspection, testing and adjustments to ensure equipment is installed, adjusted, and tested in accordance with the manufacturer's recommendations and is ready for operation.
- B. The manufacturer's representative shall, upon satisfactory completion of inspection and testing, attach a label to all serviced devices indicating the date serviced and testing company responsible.

3.3 FIELD TESTING AND COMMISSIONING

- A. Operational Readiness Testing
 - 1. The Contractor shall inspect and test furnished equipment and associated systems for conformance to the contract documents, including equipment manufacture's recommendations, and readiness for operation. The test shall include the following as a minimum:
 - a. Visually inspect for physical damage and proper installation
 - b. Perform tests in accordance with manufacturer's instructions
 - c. Perform tests to ensure compliance with Contract Documents
 - d. Perform tests that equipment is ready for operation
 - e. Touch-up paint all chips and scratches with manufacturer-supplied paint and transfer remaining paint to Owner
 - 2. Contractor shall submit an operational readiness test report documenting all test results, including all assumptions, conditions, allowances and corrections made during the test. The report shall provide a listing of all modifications and adjustments made onsite to include any settings / parameters not identified as factory defaults within the equipment's O&M documentation. The test report shall include a signed statement from the Contractor, installer(s) and the factory-trained manufacturer's representative(s) certifying that the furnished equipment and associated system have been installed, configured, and tested in accordance with the manufacturer's recommendations, completely conforms to the requirements of the Contract Documents and is ready for operation.
- B. Functional Demonstration Testing
 - 1. Prior to scheduling functional demonstration testing the Contractor shall submit a signed statement from the Contractor, installer(s) and the factory-trained manufacturer's representative(s) certifying that the furnished equipment and associated system have been installed, configured, and tested in accordance with the manufacturer's recommendations, completely conforms to the requirements of the Contract Documents and is ready for operation.
 - 2. The Contractor shall completely demonstrate the functionality and performance of the equipment and associated systems in the presence of Owner and Engineer, observing and documenting complete compliance with the Contract Documents.
 - 3. The Contractor shall submit a written report documenting successful completion of functional demonstrating testing including all assumptions, conditions, allowances and corrections made during the test.

3.4 TRAINING

- A. O&M Training: Onsite training specific to the equipment furnished shall be provided to the Owner's staff by a factory trained manufacturer's representative. Training duration shall be sufficiently adequate to cover the operation and maintenance of the equipment and shall consist of not less than 2 repeated session(s) with 2 hours of onsite classroom and hands-on instruction for a minimum of 4 attendees per session.
 - 1. The instructor shall provide sufficient time and detail in each session to cover the following as a minimum:
 - a. Theory of operation
 - b. Major components of equipment
 - c. Operation of equipment

- d. Configurations of equipment
- e. Maintenance, troubleshooting and repair
- f. Replacement of component level parts

END OF SECTION

SECTION 230500

COMMON WORK RESULTS FOR HVAC

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Basic mechanical methods.
 - 2. Mechanical identification.
- B. Related Documents: The Contract Documents, as defined in Section 011000 - Summary of Work, apply to the Work of this Section. Additional requirements and information necessary to complete the Work of this Section may be found in other Documents.

1.2 REFERENCES

- A. American Society for Testing and Materials (ASTM):
 - 1. ASTM F708 - Design and Installation of Rigid Pipe Hangers.
- B. American Society of Mechanical Engineers (ASME):
 - 1. ASME A13.1 - Scheme for the Identification of Piping Systems.
 - 2. ASME B31.5 - Refrigeration Piping
 - 3. ASME B31.9 - Building Services Piping
- C. National Fire Protection Association
 - 1. NFPA 13 - Installation of Sprinkler Systems.
- D. Institute of Electrical and Electronic Engineers
 - 1. IEEE 112 - Test Procedure for Polyphase Induction Motors and Generators.
- E. National Electrical Manufacturers Association
 - 1. NEMA MG 1 - Motors and Generators.

1.3 SUBMITTALS

- A. Section 013300 - Submittal Procedures: Procedures for submittals.
 - 1. Product Data:
 - a. Mechanical Identification: Provide manufacturers catalog literature for each product required.

1.4 QUALITY ASSURANCE

- A. Regulatory Requirements:
 - 1. Products Requiring Electrical Connection: Listed and classified by Underwriters' Laboratories, Inc., as suitable for the purpose specified and indicated.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Section 016000 - Product Requirements: Transport, handle, store, and protect Products.
- B. Protect motors stored on site from weather and moisture by maintaining factory covers and suitable weather-proof covering.

1.6 BASIC MECHANICAL METHODS

- A. Comply with manufacturer's published instructions for delivery, storage, protection, installation, and materials.
- B. When equipment is operable, and it is to the advantage of the Contractor to operate the equipment, he may do so provided that he properly supervises the operation, and retains full responsibility for the equipment operated. Regardless of whether or not the equipment has or has not been operated, the Contractor shall properly clean the equipment, install new filter media, make all required adjustments, and complete all punch list items before final acceptance by the Construction Manager and Contracting Officer.
- C. Install equipment and materials to provide required access for servicing and maintenance. Coordinate the final location of concealed equipment and devices requiring access with final location of required access panels and doors. Allow ample space for removal of all parts that require replacement or servicing.
- D. Where mounting heights are not detailed or dimensioned, install mechanical services and overhead equipment to provide the maximum headroom possible.
- E. Items exposed (in areas without ceilings) shall be installed in a neat, orderly manner. Elements shall be perpendicular and parallel to building lines.
- F. Drawings And Specifications:
 - 1. This Contractor shall make all his own measurements in the field and shall be responsible for correct fitting. Contractor shall coordinate this work with all other branches in such a manner as to cause a minimum of conflict or delay.
 - 2. Where any work is so placed as to cause or contribute to a conflict it shall be readjusted at the expense of the Contractor causing the conflict. The decision shall be final in regard to the arrangement of ducts, piping, etc., where conflict arises.
 - 3. Where offsets in systems are required to complete the installation, or for the proper operation of the system, these shall be deemed to be included in the Contract.
- G. Locations:
 - 1. Locate equipment requiring periodic servicing so that it is readily accessible. Do not back up service sides to walls, nor place it too close to other equipment to make service impractical.

PART 2 - PRODUCTS

2.1 PIPE HANGERS AND SUPPORTS

NOT USED

2.2 MOTORS

NOT USED

2.3 MECHANICAL IDENTIFICATION

- A. Nameplates: Laminated three-layer plastic with engraved black letters on light contrasting background color.
- B. Tags
 - 1. Plastic Tags: Laminated three-layer plastic with engraved black letters on light contrasting background color. Tag size minimum 1-1/2 inches (38 mm) square.
 - 2. Metal Tags: Brass or Aluminum with stamped letters; tag size minimum 1-1/2 inches (38 mm) square with smooth edges.
 - 3. Information Tags: Clear plastic with printed "Danger," "Caution," or "Warning" and message; size 3-1/4 x 5-5/8 inches (83 x 143 mm) with grommet and self-locking nylon ties.
 - 4. Tag Chart: Typewritten letter size list in anodized aluminum frame and plastic laminated.

2.4 VIBRATION ISOLATION

NOT USED

2.5 SLEEVES AND SEALS

NOT USED

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Section 017300 - Execution: Verification of existing conditions before starting work.
- B. Verification of Conditions: Verify that field measurements, surfaces, substrates and conditions are as required, and ready to receive Work.
- C. Report in writing to Contracting Officer prevailing conditions that will adversely affect satisfactory execution of the Work of this Section. Do not proceed with Work until unsatisfactory conditions have been corrected.
- D. By beginning Work, Contractor accepts conditions and assumes responsibility for correcting unsuitable conditions encountered at no additional cost to the United States Postal Service.

3.2 PREPARATION - MECHANICAL IDENTIFICATION

- A. Degrease and clean surfaces to receive adhesive for identification materials.

3.3 INSTALLATION - GENERAL

- A. Install in accordance with manufacturer's instructions.
- B. The use of lead-containing solder for plumbing and plumbing fixtures is prohibited in the construction of this project.

3.4 INSTALLATION - PIPE HANGER AND SUPPORTS

NOT USED

3.5 INSTALLATION - MOTORS

NOT USED

3.6 INSTALLATION - MECHANICAL IDENTIFICATION

- A. Install identifying devices after completion of coverings and painting.
- B. Install plastic nameplates with corrosive-resistant mechanical fasteners, or adhesive.
- C. Install tags using corrosion resistant chain. Number tags consecutively by location.
- D. Identify control panels and major control components outside panels with plastic nameplates.
- E. Identify valves in main and branch piping with tags.
- F. Tag automatic controls, instruments, and relays. Key to control schematic.

3.7 INSTALLATION - VIBRATION ISOLATION

NOT USED

3.8 PIPE HANGER AND SUPPORT SCHEDULE

NOT USED

END OF SECTION

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Last revised: 7/31/17

SECTION 233100

HVAC DUCTS AND CASINGS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Metal ductwork.
 - 2. Flexible duct connections.
- B. Related Documents: The Contract Documents, as defined in Section 011000 - Summary of Work, apply to the Work of this Section. Additional requirements and information necessary to complete the Work of this Section may be found in other Documents.
- C. Related Sections:
 - 1. Section 230500 - Common Work Results for HVAC:

1.2 REFERENCES

- A. American Society for Testing and Materials (ASTM):
 - 1. ASTM A 36 - Structural Steel.
 - 2. ASTM A 90 - Weight of Coating on Zinc-Coated (Galvanized) Iron or Steel Articles.
 - 3. ASTM A 167 - Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet and Strip.
 - 4. ASTM A 480 - General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet and Strip.
 - 5. ASTM A 653 - Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvanealed) by the Hot-Dip Process.
 - 6. ASTM A 568 Steel, Sheet, Carbon, and High-Strength, Low-Alloy, Hot-Rolled and Cold-Rolled.
- B. American Welding Society (AWS):
 - 1. AWS D9.1 - Welding of Sheet Metal.
- C. National Fire Protection Association (NFPA):
 - 1. NFPA 90A - Installation of Air Conditioning and Ventilating Systems.
 - 2. NFPA 90B - Installation of Warm Air Heating and Air Conditioning Systems.
 - 3. NFPA 91 - Installation of Blower and Exhaust Systems for Dust, Stock and Vapor Removal or Conveying.
 - 4. NFPA 96 - Installing of Equipment for the Removal of Smoke and Grease-Laden Vapors from Commercial Cooking Equipment.
- D. Sheet Metal and Air Conditioning Contractors National Association (SMACNA):
 - 1. SMACNA - HVAC Air Duct Leakage Test Manual.
 - 2. SMACNA - HVAC Duct Construction Standards - Metal and Flexible.
- E. Underwriters Laboratories, Inc. (UL):
 - 1. UL 181 - Factory-Made Air Ducts and Connectors.
 - 2.

1.3 SYSTEM DESCRIPTION

- A. Performance Requirements: No variation of duct configuration or sizes permitted except by written permission. Size round ducts installed in place of rectangular ducts in accordance with ASHRAE table of equivalent rectangular and round ducts.

1.4 SUBMITTALS

- A. Section 013300 - Submittal Procedures: Procedures for submittals.
 - 1. Product Data:
 - a. Duct materials, duct liner, duct connectors, and flexible duct.
 - b. Factory or shop manufactured assemblies including volume control dampers, duct access doors, duct test holes, and hardware used. Include electrical characteristics and connection requirements.
- B. Section 017704 - Closeout Procedures and Training: Procedures for closeout submittals.
 - 1. Project Record Documents: Accurately record the following:
 - a. Actual locations of ducts and duct fittings.
 - b. Record changes in fitting location and type.
 - c. Show additional fittings used.
 - d. Actual locations of access doors, test holes, and fire dampers.

1.5 QUALITY ASSURANCE

- A. Perform Work in accordance with SMACNA - HVAC Duct Construction Standards - Metal and Flexible.
- B. Qualifications:
 - 1. Manufacturer: Company specializing in manufacturing Products specified with minimum 5 years documented experience.
 - 2. Installer: Company specializing in performing the Work of this Section with minimum 5 years documented experience.
- C. Regulatory Requirements: Construct ductwork to NFPA 90A, NFPA 90B, and NFPA 96 standards.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Section 016000 - Product Requirements: Transport, handle, store, and protect Products.
- B. Protect dampers from damage to operating linkages and blades.

1.7 PROJECT CONDITIONS OR SITE CONDITIONS

- A. Jobsite Requirements:
 - 1. Do not install duct sealants when temperatures are less than those recommended by sealant manufacturers.
 - 2. Maintain temperatures during and after installation of duct sealants.

1.8 ENVIRONMENTAL REQUIREMENTS

NOT USED

PART 2 - PRODUCTS

- A. Galvanized Steel Ducts: ASTM A653 having zinc coating in conformance with ASTM A90.
- B. Steel Ducts: ASTM A569 and A568..
- C. Stainless Steel Ducts: ASTM A 167, Type 304.
- D. Fasteners: Rivets, bolts, or sheet metal screws.
- E. Sealant:
 - 1. Manufacturers:
 - a. Duro Dyne Corporation, Farmingdale, NY (800) 899-3876.
 - b. H.B. Fuller Co, St. Paul, MN (888) 423-8553.
 - c. Hardcast, Inc, Wylie, TX (800) 527-7092.
 - d. Section 016000 - Product Requirements: Product options and substitutions. Substitutions: Permitted.
 - 2. Non-hardening, water resistant, fire resistive, compatible with mating materials; liquid used alone or with tape, or heavy mastic.
- F. Hanger Rod: ASTM A36; steel threaded both ends, threaded one end, or continuously threaded.

2.2 AIR TURNING DEVICES/EXTRACTORS

NOT USED

2.3 DUCT ACCESS DOORS

NOT USED

2.4 DUCT TEST HOLES

NOT USED

2.5 FIRE DAMPERS

NOT USED

2.6 FLEXIBLE DUCT CONNECTIONS

- A. Manufacturers:
 - 1. Ductmate Industries, Inc, East Monongahela, PA (800) 245-3188.
 - 2. Ruskin Manufacturing, Kansas City, MO (816) 761-7476.
 - 3. Semco Inc, Columbia, MO (888) 473-6264.
 - 4. Section 016000 - Product Requirements: Product options and substitutions. Substitutions: Permitted.
- B. Fabricate in accordance with SMACNA HVAC Duct Construction Standards - Metal and Flexible, and as indicated.

- C. Connector: Fabric crimped into metal edging strip.
 - 1. Fabric: UL listed fire-retardant neoprene coated woven glass fiber fabric to NFPA 90A, minimum density 30oz per sq yd.
 - 2. Net Fabric Width: Approximately 3 inches wide.
 - 3. Metal: 3 inches wide, 24 gage thick galvanized steel.

2.7 VOLUME CONTROL DAMPERS.

NOT USED

2.8 DUCTWORK FABRICATION

- A. Fabricate and support in accordance with SMACNA HVAC Duct Construction Standards - Metal and Flexible, and as indicated. Provide duct material, gages, reinforcing, and sealing for operating pressures indicated.
- B. Construct T's, bends, and elbows with radius of not less than 1-1/2 times width of duct on centerline. Where not possible and where rectangular elbows are used, provide turning vanes.
- C. Increase duct sizes gradually, not exceeding 15 degrees divergence wherever possible; maximum 30 degrees divergence upstream of equipment and 45 degrees convergence downstream.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Section 017300 - Execution: Verification of existing conditions before starting work.
- B. Verification of Conditions: Verify that field measurements, surfaces, substrates and conditions are as required, and ready to receive Work.
 - 1. Verify that electric power is available and of the correct characteristics.
- C. Report in writing to Contracting Officer prevailing conditions that will adversely affect satisfactory execution of the Work of this Section. Do not proceed with Work until unsatisfactory conditions have been corrected.
- D. By beginning Work, Contractor accepts conditions and assumes responsibility for correcting unsuitable conditions encountered at no additional cost to the United States Postal Service.

3.2 INSTALLATION - DUCTWORK

- A. Install in accordance with manufacturer's instructions.
- B. Install and seal ducts in accordance with SMACNA HVAC Duct Construction Standards - Metal and Flexible.
- C. Duct Sizes are inside clear dimensions. For lined ducts, maintain sizes inside lining.
- D. Locate ducts with sufficient space around equipment to allow normal operating and maintenance activities.

- E. Use crimp joints with or without bead for joining round duct sizes 8 inch and smaller with crimp in direction of air flow.
- F. Use double nuts and lock washers on threaded rod supports.
- G. Connect flexible ducts to metal ducts with draw bands plus tape.
- H. During construction provide temporary closures of metal or taped polyethylene on open ductwork to prevent construction dust from entering ductwork system.
- I. Install so that unfaced fiberglass and mineral fiber insulation are not in the interior of the ductwork.

3.3 INSTALLATION - DUCTWORK ACCESSORIES

- A. Install accessories in accordance with manufacturer's instructions, NFPA 90A, and follow SMACNA HVAC Duct Construction Standards - Metal and Flexible.
- B. Provide backdraft dampers on exhaust fans or exhaust ducts nearest to outside and where indicated.
- C. Provide flexible connections immediately adjacent to equipment in ducts associated with fans and motorized equipment.

3.4 CLEANING

NOT USED

END OF SECTION

USPS Major Facility Specifications issued: 10/1/2020
Last revised: 03/31/10

SECTION 250504

BUILDING AUTOMATION SYSTEM (BAS) GENERAL

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes
 - 1. General Requirements
 - 2. Description of Work
 - 3. Quality Assurance
 - 4. System Architecture
 - 5. Distributed Processing Units/Quantity and Location
- B. Related documents
 - 1. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.
 - 2. Section 260500 – Common Work Results for Electrical
 - 3. Section 260533 – Raceway and Boxes for Electrical Systems
 - 4. Section 265100 – Interior Lighting
 - 5. Section 230500 – Common Work Results for HVAC

1.2 DESCRIPTION OF WORK

- A. The Direct Digital Control (DDC) and Building Automation System (BAS) defined in this specification shall interface with the USPS EEMS Network, and shall utilize the BACnet communication requirements as defined by ASHRAE/ANSI 135-2004 for all communication. Towards this end, contractor shall provide a router/gateway(s) as necessary to facilitate all specified objects and services and have them configured/mapped as applicable.
- B. Contractor shall furnish and install a Direct Digital Control and Building Automation System. The new BAS shall utilize electronic sensing, microprocessor-based digital control, and electronic actuation of dampers and valves to perform control sequences and functions specified. The BAS for this project will generally consist of monitoring and control of systems listed below. Reference control drawings, sequences of operation, and points lists.
- C. The systems to be controlled under work of this section basically comprise: Integration of E-house HVAC System to the existing BAS System.. The HVAC system being monitored is: E-house HVAC System. This Section and related sections defines the manner and method by which these monitors function.

1.3 APPLICATION OF OPEN PROTOCOLS

- A. Subject to the detailed requirements provided throughout the specifications, the BAS and digital control and communications components installed, as work of this contract shall be an integrated distributed processing system utilizing BACnet. System components shall communicate using native BACnet in accordance with ASHRAE Standard 135 and current addenda and annexes, including all workstations, all building controllers, and all application specific controllers. Gateway to other communication protocols is an acceptable solution.

1.4 QUALITY ASSURANCE

- A. Reserved
- B. All products used in this project shall be a current product under manufacture. Spare parts are to be available for a period of at least five years after project completion. The vendor shall have a stated policy of maintaining backward compatibility with previous versions of its product.
- C. Product Line Demonstrated History: The product line being proposed for the project must have an installed history of demonstrated satisfactory operation for a length of 2 years since date of final completion in at least 10 installations of comparative size and complexity. Submittals shall document this requirement with references.
- D. Installer's Qualifications: Firms specializing and experienced in control system installations for not less than 5 years. Firms with experience in DDC installation projects with point counts equal to this project and systems of the same character as this project. If installer is a Value Added Reseller (VAR) of a manufacturer's product, installer must demonstrate at least three years prior experience with that manufacturer's products. Experience starts with awarded Final Completion of previous projects. Submittals must document this experience with references.
- E. Installer's Experience with Proposed Product Line: Firms shall have specialized in and be experienced with the installation of the proposed product line for not less than one year from date of final completion on at least 3 projects of similar size and complexity. Submittals shall document this experience with references.
- F. Installer's Field Coordinator and Sequence Programmer Qualifications: Individual(s) shall specialize in and be experienced with control system installation for not less than 5 years. Proposed field coordinator shall have experience with the installation of the proposed product line for not less than 2 projects of similar size and complexity. Installer shall submit the names of the proposed individual and at least one alternate for each duty. Submittals shall document this experience with references. The proposed individuals must show proof of the following training:
 - 1. Product Line Training: Individuals overseeing the installation and configuration of the proposed product line must provide evidence of the most advanced training offered by the Manufacturer on that product line for installation and configuration
 - 2. Programming Training: Individuals involved with programming the site-specific sequences shall provide evidence of the most advanced programming training offered by the vendor of the programming application offered by the Manufacturer.
- G. Installer's Service Qualifications: The installer must be experienced in control system operation, maintenance and service. Installer must document a minimum 5 year history of servicing installations of similar size and complexity. Installer must also document at least a one year history of servicing the proposed product line.
- H. Installer's Response Time and Proximity
- I. Installer must maintain a fully capable service facility within a 100 mile radius of the project site. Service facility shall manage the emergency service dispatches and maintain the inventory of spare parts.
 - 1. Emergency response time should be within an hour. Installer must demonstrate the ability to meet the response times.

1.5 CODES AND STANDARDS

- A. The following codes and standards intended to apply as applicable as not all will apply to all installations
- B. American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE)

Switchgear Replacement
Hartford, CT - P&DC
B43529/18034.00

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1. ASHRAE 135-2004 and all addenda: BACnet - A Data Communication Protocol for Building Automation and Control Networks. American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. 2004 including all Addendums.
- C. Electronics Industries Alliance
1. EIA-709.1-A-99: Control Network Protocol Specification
 2. EIA-709.3-99: Free-Topology Twisted-Pair Channel Specification
 3. EIA-232: Interface Between Data Terminal Equipment and Data Circuit-Terminating Equipment Employing Serial Binary Data Interchange.
 4. EIA-458: Standard Optical Fiber Material Classes and Preferred Sizes
 5. EIA-485: Standard for Electrical Characteristics of Generator and Receivers for use in Balanced Digital Multipoint Systems.
 6. EIA-472: General and Sectional Specifications for Fiber Optic Cable
 7. EIA-475: Generic and Sectional Specifications for Fiber Optic Connectors and all Sectional Specifications
 8. EIA-573: Generic and Sectional Specifications for Field Portable Polishing Device for Preparation Optical Fiber and all Sectional Specifications
 9. EIA-590: Standard for Physical Location and Protection of Below-Ground Fiber Optic Cable Plant and all Sectional Specifications
- D. Underwriters Laboratories
1. UL 916: Energy Management Systems.
- E. NEMA Compliance
1. NEMA 250: Enclosure for Electrical Equipment
 2. NEMA ICS 1: General Standards for Industrial Controls.
- F. NFPA Compliance
1. NFPA 90A "Standard for the Installation of Air Conditioning and Ventilating Systems" where applicable to controls and control sequences.
 2. NFPA 70 National Electrical Code (NEC)
- G. Institute of Electrical and Electronics Engineers (IEEE)
1. IEEE 142: Recommended Practice for Grounding of Industrial and Commercial Power Systems
 2. IEEE 802.3: CSMA/CD (Ethernet – Based) LAN
 3. IEEE 802.4: Token Bus Working Group (ARCNET – Based) LAN

1.6 DEFINITIONS

- A. Advanced Application Controller (AAC): A device with limited resources relative to the Building Controller (BC). It may support a level of programming and may also be intended for application-specific applications.
- B. Application Protocol Data Unit (APDU): A unit of data specified in an application protocol and consisting of application protocol control information and possible application user data (ISO 9545).
- C. Application Specific Controller (ASC): A device with limited resources relative to the Advanced Application Controller (AAC). It may support a level of programming and may also be intended for application-specific applications. .
- D. BACnet/BACnet Standard: BACnet communication requirements as defined by ASHRAE/ANSI 135-2004.

- E. BACnet Interoperability Building Blocks (BIBB): A BIBB defines a small portion of BACnet functionality that is needed to perform a particular task. BIBBS are combined to build the BACnet functional requirements for a device in a specification.
- F. Binding: In the general sense, binding refers to the associations or mappings of the sources network variable and their intended opr required destinations.
- G. Building Automation System (BAS): The entire integrated management and control system.
- H. Building Controller (BC): A fully programmable device capable of carrying out a number of tasks including control and monitoring via direct digital control (DDC) of specific systems, acting as a communications router between the LAN backbone and sub-LANs, and data storage for trend information, time schedules, and alarm data.
- I. Change of Value (COV): An event that occurs when a measured or calculated analog value changes by a predefined amount (ASHRAE/ANSI 135-2004).
- J. Client: A device that is the requestor of services from a server. A client device makes requests of and receives responses from a server device.
- K. Continuous Monitoring: A sampling and recording of a variable based on time or change of state (e.g. trending an analog value, monitoring a binary change of state).
- L. Controller or Control Unit (CU): Intelligent stand-alone control panel. Controller is a generic reference and shall include BCs, AACs, and ASCs as appropriate.
- M. Control Systems Server (CSS): This shall be a computer (or computers) that maintains the system's configuration and programming database. This may double as an operator workstation.
- N. Direct Digital Control (DDC): Microprocessor-based control including Analog/Digital conversion and program logic.
- O. Enterprise Energy Management System (EEMS): The USPS Enterprise Energy management System is an existing Ethernet/Internet-based network based system connecting multiple facilities with a central data warehouse and server and, accessible via standard web-browser and Terminal Services.
- P. Functional Profile: A collection of variables required to define the key parameters for a standard application. As this applies to the HVAC industry, this would include applications like VAV terminal, fan coil units, and the like.
- Q. Gateway (GTWY): A device, which contains two or more dissimilar networks/protocols, permitting information exchange between them (ASHRAE/ANSI 135-2004).
- R. Hand Held Device (HHD): Manufacturer's microprocessor based device for direct connection to a Controller.
- S. IT LAN: Reference to the facility's Information Technology network, used for normal business-related e-mail and Internet communication.
- T. LAN Interface Device (LANID): Device or function used to facilitate communication and sharing of data throughout the BAS
- U. Local Area Network (LAN): General term for a network segment within the architecture. Various types and functions of LANs are defined herein.

- V. Local Supervisory LAN: Ethernet-based LAN connecting Primary Controller LANs with each other and OWSs, CSSs and EEMS if specified. See System Architecture below. CAN BE THE PRIMARY CONTROLLING LAN.
- W. Master-Slave/Token Passing (MS/TP): Data link protocol as defined by the BACnet standard. (ASHRAE/ANSI 135-2004).
- X. Open Database Connectivity (ODBC): An open standard application-programming interface (API) for accessing a database developed. ODBC compliant systems make it possible to access any data from any application, regardless of which database management system (DBMS) is handling the data.
- Y. Operator Interface (OI): A device used by the operator to manage the BAS including OWSs, POTs, and HHDs.
- Z. Operator Workstation (OWS): The user's interface with the BAS system. As the BAS network devices are stand-alone, the OWS is not required for communications to occur.
- AA. Point-to-Point (PTP): Serial communication as defined in the BACnet standard.
- BB. Portable Operators Terminal (POT): Laptop PC used both for direct connection to a controller and for remote dial up connection.
- CC. Protocol Implementation Conformance Statement (PICS): A written document, created by the manufacturer of a device, which identifies the particular options specified by BACnet that are implemented in the device (ASHRAE/ANSI 135-2004).
- DD. Primary Controlling LAN: High speed, peer-to-peer controller LAN connecting BCs and optionally AACs and ASCs. Refer to System Architecture below.
- EE. Router: A device that connects two or more networks at the network layer.
- FF. Secondary Controlling LAN: LAN connecting AACs and ASCs, generally lower speed and less reliable than the Primary Controlling LAN. Refer to System Architecture below.
- GG. Server: A device that is a provider of services to a client. A client device makes requests of and receives responses from a server device.
- HH. SQL: Standardized Query Language, a standardized means for requesting information from a database.
- II. XML (Extensible Markup Language): A specification developed by the World Wide Web Consortium. XML is a pared-down version of SGML, designed especially for Web documents. It allows designers to create their own customized tags, enabling the definition, transmission, validation, and interpretation of data between applications and between organizations.

1.7 FUNCTIONAL INTENT AND PRODUCT SUBSTITUTIONS

- A. Throughout Section 250504 detailed requirements are specified, some of which indicate a means, method or configuration acceptable to meet that requirement. Contractor may submit products that utilize alternate means, methods, and configurations that meet the functional intent. Contractors shall be allowed to propose product substitutions without prior approval. The successful Supplier will be required to demonstrate that proposed products meet all specification requirements through the shop drawing submittal process. If they are unable to demonstrate that their product meets these requirements, then Supplier will be required to furnish an alternative product from one of the approved manufacturers.

1.8 SUBMITTALS

- A. Submit under provisions of Section 013300.
- B. Electronic Submittals: While all requirements for hard copy submittal apply, control submittals and O&M information shall also be provided in electronic format as follows.
 - 1. Drawings and Diagrams: Shop drawings shall be provided on electronic media as an AutoCAD 2004 or later version drawing file and/or Adobe Portable Document Format file. All 'x reference' and font files must be provided with AutoCAD files.
 - 2. Other Submittals: All other submittals shall be provided in Adobe Portable Document Format
- C. Qualifications: Manufacturer, Installer, and Key personnel qualifications as indicated for the appropriate item above.
- D. Product Data: Submit manufacturer's technical product data for each control device, panel, and accessory furnished, indicating dimensions, capacities, performance and electrical characteristics, and material finishes. Also include installation and start-up instructions.
- E. Shop Drawings: Submit shop drawings for each control system, including a complete drawing for HVAC system with all point descriptors, addresses and point names indicated. Each shop drawing shall contain the following information:
 - 1. System Architecture and System Layout:
 - a. One-line diagram indicating schematic locations of all control units, workstations, LAN interface devices, gateways, etc. Indicate network number, device ID, address, device instance, drawing reference number, and controller type for each control unit. Indicate media, protocol, baud rate, and type of each LAN. All optical isolators, repeaters, end-of-line resistors, junctions, ground locations etc. shall be located on the diagram.
 - 2. All physical points on the schematic flow diagram shall be indicated with names, descriptors, and point addresses identified as listed in the point summary table.
 - 3. On each schematic, provide a point summary table listing building number and abbreviation, Ethernet backbone network number, network number, device ID, full point name, point description, , object ID (object type, instance number).
 - 4. Provide as a separate table a listing of each BACnet object to include Device ID, object ID description, alarm value, for each I/O, virtual and calculated point
 - 5. Label each control device with setting or adjustable range of control.
 - 6. Label each input and output with the appropriate range.
 - 7. Provide a Bill of Materials with each schematic. Indicate device identification to match schematic and actual field labeling, quantity, actual product ordering number, manufacturer, description, size, voltage range, pressure range, temperature range, etc. as applicable.
 - 8. Indicate all required electrical wiring. Electrical wiring diagrams shall include both ladder logic type diagram for motor starter, control, and safety circuits and detailed digital interface panel point termination diagrams with all wire numbers and terminal block numbers identified. Provide panel termination drawings on separate drawings. Ladder diagrams shall appear on system schematic. Clearly differentiate between portions of wiring, which are existing, factory-installed and portions to be field-installed.
 - 9. Sheets shall be consecutively numbered.
 - 10. Each sheet shall have a title indicating the type of information included and the HVAC system controlled.
 - 11. Table of Contents listing sheet titles and sheet numbers.
 - 12. Legend and list of abbreviations.
 - 13. Memory allocation projections.
 - 14. Submit along with shop drawings but under separate cover calculated and guaranteed system response times of the most heavily loaded LAN in the system.

- F. Open Protocol Information
1. BACnet Systems:
 - a. BACnet object description, object ID, and device ID, for each I/O point.
 - b. Documentation for any non-standard BACnet objects, properties, or enumerations used detailing their structure, data types, and any associated lists of enumerated values.
 - c. Submit PICS indicating the BACnet functionality and configuration of each controller.
- G. Framed Control Drawings: Laminated control drawings including system control schematics, sequences of operation and panel termination drawings, shall be provided in panels for major pieces of equipment. Terminal unit drawings shall be located in the central plant equipment panel or mechanical room panel.
- H. Control Logic Documentation
1. Submit control logic program listings (for graphical programming) and logic flow charts illustrating (for line type programs) to document the control software of all control units.
 2. Control logic shall be annotated to describe how it accomplishes the sequence of operation. Annotations shall be sufficient to allow an operator to relate each program component (block or line) to corresponding portions of the specified Sequence of Operation.
 3. Include written description of each control sequence.
 4. Include control response, settings, setpoints, throttling ranges, gains, reset schedules, adjustable parameters and limits.
 5. Sheets shall be consecutively numbered.
 6. Each sheet shall have a title indicating the controller designations and the HVAC system controlled.
 7. Include Table of Contents listing sheet titles and sheet numbers
 8. Submit one complete set of programming and operating manuals for all digital controllers concurrently with control logic documentation. This set will count toward the required number of Operation and Maintenance materials specified below and in Section 017704.
- I. Operation and Maintenance Materials:
1. Submit documents under provisions of Section 013300. One copy of the materials shall be delivered directly to the USPS facilities operation staff, in addition to the copies required by other Sections.
 2. Submit maintenance instructions and spare parts lists for each type of control device, control unit, and accessory.
 3. Include all submittals (product data, shop drawings, control logic documentation, hardware manuals, software manuals, installation guides or manuals, maintenance instructions and spare parts lists) in maintenance manual; in accordance with requirements of Division 1.
 4. Submit listing required preventative and predictive maintenance tasks required for all equipment furnished, network and system health monitoring and activities. For each item listed, provide specific task instructions, acceptance criteria and recommended task frequency.
 5. Submit schedule of planned maintenance tasks to be completed by the vendor during the warranty period specified below.
- J. Controls contractor shall provide to the USPS with all product line technical manuals and technical bulletins, to include new and upgraded products, by the same distribution channel as to dealers or branches. This service will be provided for 5 years as part of the contract price, and will be offered to the USPS thereafter for the same price as to a dealer or branch.
- K. Manufacturers Certificates: For all listed and/or labeled products, provide certificate of conformance.

- L. Product Warranty Certificates: submit manufacturers product warranty certificates covering the hardware provided.

1.9 PROJECT RECORD DOCUMENTS

- A. Submit documents under provisions of Section 013300.
- B. Record copies of product data and control shop drawings updated to reflect the final installed condition.
- C. Provide record riser diagram showing the location of all controllers.
- D. Maintain project record documents throughout the warranty period and submit final documents at the end of the warranty period

1.10 SYSTEM ARCHITECTURE

- A. The system provided shall incorporate hardware resources sufficient to meet the functional requirements of these Specifications. The Contractor shall include all items not specifically itemized in these Specifications that are necessary to implement, maintain, and operate the system in compliance with the functional intent of these Specifications.
- B. The system shall be configured as a distributed processing network(s) capable of expansion as specified below.
- C. The system architecture shall consist of an Ethernet-based, wide area network (WAN), a single Local Area Network (LAN) or multi-leveled LANs that support BCs, AACs, ASCs, Operator Workstations (OWS), and Remote Communication Devices (RCDs) as applicable. The following indicates a functional description of the BAS structure.
 - 1. EEMS LAN: Internet-based network connecting multiple facilities with a central data warehouse and then EEMS server. This is an existing infrastructure and contractor is not required to configure any components of this EEMS. Contractor is however required to provide BACnet Objects and services at the Local Supervisory LAN via BACnet over IP.
 - 2. Local Supervisory LAN: The Local Supervisory LAN shall be an Ethernet-based, 100 Mbps LAN connecting Primary Control LANs and OWSSs. The LAN serves as the inter-BC communications path and OWS-to-BC gateway and communications path. LAN shall be IEEE 802.3 Ethernet over Fiber or Category 5 cable with switches and routers that support 100 Mbps throughput. Power-line carrier communication shall not be acceptable for communications. The higher level layers of this network shall be BACnet as described below:
 - a. BACnet Supervisory LAN: BACnet/IP as defined in Addendum A (Annex J) of the BACnet standard, and shall share a common network number for the Ethernet backbone, as defined in BACnet. Point/Object naming conventions are specified in 251404 - Part III.
 - 3. Primary Controller LAN ('Primary LAN'): High-speed, peer-to-peer communicating LAN used to connect AACs, ASCs and Building Controllers (BCs) and communicate exclusively control information. Acceptable technologies include:
 - a. Ethernet (IEEE802.3)
 - b. ARCNET (IEEE802.4)
 - 4. Secondary Controller LAN ('Secondary LAN'): Network used to connect AACs or ASCs to BC. These can be Master Slave/ Token Passing or polling, in addition to those allowed for Primary Controller LANs. Network speed vs. the number of controllers on the LAN shall be dictated by the response time and trending requirements.

- D. Dynamic Data Access: Any data throughout any level of the network shall be available to and accessible by all other devices, Controllers and OWS, whether directly connected or connected remotely.
- E. Remote Data Access: The system shall support the following methods of remote access to the building data.
1. Dial-in via minimum of a 56k modem. Dial-in connection shall allow access to all control system facilities and graphics with appropriate password. The USPS shall provide and pay for the digital grade voice line to support this remote connection.
 2. DSL/Broadband/Fiber. All workstations shall be equipped with standard 100 megabit Ethernet cards; the USPS at its option may elect to use DSL or other broadband service to access the system.
 3. Browser-based access: A remote user using a standard browser shall be able access all control system facilities and graphics with proper password. USPS shall secure and be responsible for the continuous Internet connection. The following paradigms are acceptable for browser-based access:
 - a. Native Internet-based user interfaces (HTML, Java, XML, etc.) that do not require a plug-in.
 - b. User interfaces that via a standard browser use a freely distributed and automatically downloaded and installed plug-in or 'thick' client that presents the user interface across the web.
- F. The communication speed between the controllers, LAN interface devices, and operator interface devices shall be sufficient to ensure fast system response time under any loading condition. Contractor shall submit guaranteed response times with shop drawings including calculations to support the guarantee. In no case shall delay times between an event, request, or command initiation and its completion be greater than those listed herein. Contractor shall reconfigure LAN as necessary to accomplish these performance requirements. Generally requirements do not apply when a remote connection must be established via modem:
1. 5 seconds between a Level 1 (critical) alarm occurrence and enunciation at operator workstation.
 2. 10 seconds between a Level 2 alarm occurrence and enunciation at operator workstation.
 3. 20 seconds between and a Level 3-5 alarm occurrence and enunciation at operator workstation.
 4. 10 seconds between an operator command via the operator interface to change a setpoint and the subsequent change in the controller.
 5. 5 seconds between an operator command via the operator interface to start/stop a device and the subsequent command to be received at the controller.
 6. 10 seconds between a change of value or state of an input and it being updated on the operator interface.
 7. 10 seconds between an operator selection of a graphic and it completely painting the screen and updating at least 10 points.
- G. The BCs, AACs, ASCs, shall monitor, control, and provide the field interface for all points specified. Each BC, AAC, or ASC shall be capable of performing all specified energy management functions, and all DDC functions, independent of other BCs, AACs, or ASCs and operator interface devices.
- H. Systems Configuration Database: The system architecture shall support maintaining the systems configuration database on a server or workstation on the Local Supervisory LAN. User tools provided to the USPS shall allow configuring, updating, maintaining, etc. current configurations and settings whether they are initiated at the server or the end device. Database Schema shall be published and provided to the USPS to facilitate easy access to the data.
- I. Interruptions or fault at any point on any Primary Controller LAN shall not interrupt communications between other nodes on the network. If a LAN is severed, two separate networks shall be formed and communications within each network shall continue uninterrupted.

- J. All line drivers, signal boosters, and signal conditioners etc. shall be provided as necessary for proper data communication.
- K. Anytime any controller's database or program is changed in the field, the controller shall be capable of automatically uploading the new data to the CSS.

1.11 WARRANTY MAINTENANCE

- A. Contractor shall warrant all products and labor for a period of one year after acceptance.
- B. The USPS reserves the right to make changes to the BAS during the warranty period. Such changes do not constitute a waiver of warranty. The Contractor shall warrant parts and installation work regardless of any such changes made by the USPS, unless the Contractor provides clear and convincing evidence that a specific problem is the result of such changes to the BAS.
- C. At no cost to the USPS, during the warranty period, the Contractor shall provide maintenance services for software and hardware components as specified below:
 - 1. Normal Service: Any malfunction, failure, or defect in any hardware component or failure of any control programming that would not result in property damage or loss of comfort control shall be corrected and repaired following telephonic notification by the USPS to the Contractor.
 - a. Response by telephone to any request for service shall be provided within eight (8) working hours (contractor specified 40 hr per week normal working period) of the USPS's initial telephone request for service.
 - b. In the event that the malfunction, failure, or defect is not corrected through the telephonic communication, at least one (1) hardware and software technician, trained in the system to be serviced, shall be dispatched to the USPS's site within three (3) working days of the USPS's initial telephone request for such services, as specified.
 - 2. Telephonic Request for Service: Contractor shall specify a maximum of three telephone numbers for the USPS to call in the event of a need for service. At least one of the lines shall be attended at any given time at all times. Alternatively, pagers can be used for technicians trained in system to be serviced. One of the three paged technicians shall respond to every call within 15 minutes.
 - 3. Technical Support: Contractor shall provide technical support by telephone throughout the warranty period.
 - 4. Preventive maintenance shall be provided throughout the warranty period in accordance with the hardware component manufacturer's requirements and submitted maintenance plan.

1.12 DELIVERY, STORAGE, AND HANDLING

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

1.13 LISTING AND LABELING

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

PART 2 - PRODUCTS

2.1 MATERIALS AND EQUIPMENT

- A. General: Provide electronic electric control products in sizes and capacities indicated, consisting of controllers, sensors, and other components as required for a complete installation. Except as otherwise indicated, provide manufacturer's standard materials and components as published in their product information; designed and constructed as recommended by manufacturer, and as required for application indicated.
- B. Communication Wiring: All wiring shall be in accordance with National Electrical Codes and Division 26 of this specification.
 - 1. Contractor shall supply all communication wiring between Building Controllers, Routers, Gateways, AAC's, ASC's and local and remote peripherals (e.g., operator workstations, printers, and modems).
 - 2. Local Supervisory LAN: For any portions of this network required under this section of the specification, contractor shall use Fiber or Category 5e of standard TIA/EIA (100/1000BaseT). Network shall be run with no splices and separate from any wiring over thirty (30) volts.
 - 3. Primary and Secondary Controller LANs: Communication wiring shall be individually 100% shielded pairs per manufacturers recommendations for distances installed, with overall PVC cover, Class 2, plenum-rated run with no splices and separate from any wiring over thirty (30) volts. Shield shall be terminated and wiring shall be grounded as recommended by BC manufacturer.
- C. Signal Wiring: Contractor shall run all signal wiring in accordance with National Electric Codes and the Division 26 Specification.
 - 1. Signal wiring to all field devices, including, but not limited to, all sensors, transducers, transmitters, switches, etc. shall be twisted, 100% shielded pair, minimum 18-gauge wire, with PVC cover. Signal wiring shall be run with no splices and separate from any wiring above thirty (30) volts.
 - 2. Signal wiring shield shall be grounded at controller end only unless otherwise recommended by the controller manufacturer.
- D. Low Voltage Analog Output Wiring: Contractor shall run all low voltage control wiring in accordance with National Electric Codes and the Division 26 Specification.
 - 1. Low voltage control wiring shall be minimum 16-gauge, twisted pair, 100% shielded, with PVC cover, Class 2 plenum-rated. Low voltage control wiring shall be run with no splices separate from any wiring above thirty (30) volts.
- E. Control Panels: Provide control panels with suitable brackets for wall mounting for each control system. Locate panel adjacent to systems served.
 - 1. Fabricate panels of 16-gage furniture-grade steel, or 6063-T5 extruded aluminum alloy, totally enclosed on four sides, with hinged door and keyed lock, with manufacturer's standard shop- painted finish and color.
 - 2. Provide UL-listed cabinets for use with line voltage devices.
 - 3. Control panel shall be completely factory wired and piped, and all electrical connections made to a terminal strip. Control panel shall have standard manufacturer's color.
 - 4. All gauges and control components shall be identified by means of nameplates.
 - 5. All control tubing and wiring shall be run neatly and orderly in open slot wiring duct with cover.
 - 6. All control tube and wiring shall be labeled to match the control drawing submittals.
 - 7. Complete wiring and tubing termination drawings shall be mounted in or adjacent to panel.

- 2.2 CONTROL VALVES
NOT USED
- 2.3 CONTROL DAMPERS
NOT USED
- 2.4 ACTUATORS
NOT USED
- 2.5 GENERAL FIELD DEVICES
- A. It shall be the Contractor's responsibility to assure that all field devices are compatible with controller hardware and software.
 - B. Accuracy: As stated in this Section, accuracy shall include combined effects of nonlinearity, nonrepeatability and hysteresis.
- 2.6 TEMPERATURE SENSORS (TS)
NOT USED
- 2.7 TEMPERATURE TRANSMITTERS
NOT USED
- 2.8 HUMIDITY TRANSMITTERS
NOT USED
- 2.9 DIFFERENTIAL PRESSURE SWITCHES (DPS)
NOT USED
- 2.10 PRESSURE SWITCHES (PS)
NOT USED
- 2.11 TRANSDUCERS
NOT USED
- 2.12 CURRENT SWITCHES (CS)
NOT USED

- 2.13 OUTDOOR AIR STATIC PRESSURE SENSING TIP
NOT USED
- 2.14 AIRFLOW MEASURING STATIONS (AFMS)
NOT USED
- 2.15 AIR VELOCITY PRESSURE SENSORS (INSERTION TYPE)
NOT USED
- 2.16 CO₂ SENSORS/TRANSMITTERS (CO₂)
NOT USED
- 2.17 PNEUMATIC CONTROL COMPONENTS
NOT USED
- 2.18 ELECTRIC CONTROL COMPONENTS
NOT USED
- 2.19 REFRIGERANT MONITOR
NOT USED
- 2.20 SMOKE CONTROL/FIREMAN'S OVERRIDE PANEL
NOT USED
- 2.21 NAMEPLATES
- A. Provide engraved phenolic or micarta nameplates for all equipment, components, and field devices furnished. Nameplates shall be 1/8 thick, black, with white center core, and shall be minimum 1" x 3", with minimum 1/4" high block lettering. Nameplates for devices smaller than 1" x 3" shall be attached to adjacent surface.
 - B. Each nameplate shall identify the function for each device.
- 2.22 TESTING EQUIPMENT
- A. Contractor shall test and calibrate all signaling circuits of all field devices to ascertain that required digital and accurate analog signals are transmitted, received, and displayed at system operator terminals, and make all repairs and recalibrations required to complete test. Contractor shall be responsible for test equipment required to perform these tests and calibrations. Test equipment used for testing and calibration of field devices shall be at least twice as accurate as

respective field device (e.g., if field device is +/-0.5% accurate, test equipment shall be +/-0.25% accurate over same range).

PART 3 - EXECUTION

3.1 INSPECTION

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

3.2 INSTALLATION OF CONTROL SYSTEMS

- A. General: Install systems and materials in accordance with manufacturer's instructions, roughing-in drawings and details shown on drawings.
- B. Refer to additional requirements in other sections of this specification.

3.3 DIGITAL CONTROL STATIONS, CONTROLLER QUANTITY AND LOCATION

- A. Individual Digital Control Stations (DCS) are referenced to indicate allocation of points to each DCS and DCS location. Digital control stations shall consist of one or multiple controllers to meet requirements of this specification.

3.4 SURGE PROTECTION

- A. The Contractor shall furnish and install any power supply surge protection, filters, etc. as necessary for proper operation and protection of all BCs, AAC/ASCS operator interfaces, printers, routers, gateways and other hardware and interface devices. All equipment shall be capable of handling voltage variations 10% above or below measured nominal value, with no affect on hardware, software, communications, and data storage.

3.5 DEMOLITION AND REUSE OF EXISTING MATERIALS AND EQUIPMENT [R&A PROJECTS ONLY] NOT USED

3.6 SEQUENCE OF WORK FOR EXISTING SYSTEMS CONVERSION [R&A PROJECTS ONLY] NOT USED

3.7 CONTROL POWER SOURCE AND SUPPLY

- A. Section 250504 Contractor shall extend all power source wiring required for operation of all equipment and devices provided under Sections 250504.
- B. General requirements for obtaining power include the following:
 - 1. Obtain power from a source that feeds the equipment being controlled such that both the control component and the equipment are powered from the same panel. Where equipment is powered from a 460V source, obtain power from the electrically most proximate 120v source fed from a common origin.

2. Where control equipment is located inside a new equipment enclosure, coordinate with the equipment manufacturer and feed the control with the same source as the equipment. If the equipment's control transformer is large enough and of the correct voltage to supply the control system it may be used. If the equipment's control transformer is not large enough or of the correct voltage to supply the controls provide separate transformer
3. Where a controller controls multiple systems on varying levels of power reliability (normal, emergency, and/or interruptible), the controller shall be powered by the highest level of reliability served. Furthermore, the controller in that condition shall monitor each power type served to determine so logic can assess whether a failure is due to a power loss and respond appropriately. A three-phase monitor into a digital input shall suffice as power monitoring.
4. Standalone Functionality: E-house HVAC System shall have standalone function.

3.8 BAS START UP, COMMISSIONING AND TRAINING

NOT USED

3.9 SEQUENCE OF OPERATION

NOT USED

APPENDIX A

System Point Lists

- A. Purpose: The following point list tables identify the general system control and monitoring points expected to be implemented for each system. Additional points may be needed to fully implement the control sequences and calculation algorithms. This should be included in the submittals specified in other sections. All additional points shall follow the point naming convention established in related sections.
- B. Point List table descriptions
1. Point ID: system point name following point naming standard established in related sections.
 2. Description: Additional descriptive information relating to the point to expound on the system Point ID.
 3. Control SP: For points in control loops, the control loop setpoint.
 4. Alarm Data: Identification of alarm levels for the point identified. Contractor shall provide alarm objects for set with the identified parameters
 5. Trend Data: Indication of which points shall be trended and in what manner. All trends are stored in the field panel local memory.
 - a. Type: COV - change in value, value recorded and time stamped when value changes by a set threshold; Time – value recorded and time stamped at set time intervals.
 - b. Freq.: Set frequency interval, in minutes, a time based trend is stored.
 - c. Min Storage: The minimum number of samples either time based or COV to be stored in the field panel.
 6. Graphic Display: This group is an indication of where points shall be shown on system graphics and trend graph groupings. This is a general assignment of system points to graphic displays and graphs. Additional points may need to be shown to ease of operator functionality. All graphics and graphs shall be mocked up and submitted for approval before final programming.
 - a. System Diagram: The graphic screen, at a minimum on which the point is to be presented.
 - b. Trend graph: The trend graph grouping to which the point should be assigned. Trend graphs shall have their vertical scale set to include the typical range of the operating parameters measured. Scales shall be fixed to allow vertical units to be easily read values. On trend groupings with diverse parameters, a second vertical axis shall be set to all reasonable comparisons of the relationships between parameters.

END OF SECTION

USPS Mail Processing Facility Specification issued: 10/1/2020
Last revised: 7/31/2018

SECTION 260500

COMMON WORK RESULTS FOR ELECTRICAL

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes:
 - 1. Basic electrical methods.
 - 2. Grounding and bonding.
 - 3. Hangers and supports.
 - 4. Electrical identification.
 - 5. Motor starters, controls, and connections to mechanical equipment.
 - 6. Electrical system testing and inspection.
- B. Related Documents: The contract documents, as defined in Section 011000 – Summary of Work, apply to the work of this section. Additional requirements and information necessary to complete the work of this section may be found in other documents.
- C. Related Sections:
 - 1. Section 078400 - Firestopping
 - 2. Section 230500 - Common Work Results for HVAC
 - 3. Section 251104 - Metering Devices
 - 4. Section 260519 - Low-Voltage Electrical Power Conductors and Cables
 - 5. Section 260533 - Raceway and Boxes for Electrical Systems
 - 6. Section 262413 - Switchboards
 - 7. Section 262726 - Wiring Devices
 - 8. Section 264128 - Surge Protective Devices (SPD's)
 - 9. Section 265100 - Interior Lighting (LED - Solid State)
 - 10. Section 283100 - Fire Emergency Voice/Alarm Communication System (EVACS)

1.2 REFERENCES

- A. National Electrical Contractors Association (NECA):
 - 1. NECA SI - Standard of Installation.
- B. National Electrical Manufacturers Association (NEMA):
 - 1. NEMA KS 1 - Enclosed Switches.
- C. National Electrical Testing Association (NETA):
 - 1. NETA ATS - Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems.
- D. National Fire Protection Association (NFPA):
 - 1. NFPA 70 - National Electrical Code.

1.3 SUBMITTALS

- A. Section 013300 - Submittal Procedures: Procedures for submittals.
 - 1. Product Data:

Switchgear Replacement
Hartford, CT - P&DC
B43529/18034.00

260500 - 1

USPS MPFS

Date: 10/1/2020

COMMON WORK RESULTS
FOR ELECTRICAL

- a. Grounding electrodes and connections.
 - b. Starter electrical characteristics and connection requirements.
- 2. Assurance/Control Submittals:
 - a. Electrical System Test Reports: Submit report including the following directly to the USPS Project Manager from Testing Laboratory, with copy to Contractor. Prepare reports in conformance with Section 014000 - Quality Requirements.
 - b. Summary of project.
 - c. Description of equipment tested.
 - d. Description of test.
 - e. Test results.
 - f. Conclusions and recommendations.
 - g. Appendix, including appropriate test forms.
 - h. List of test equipment used and calibration date.
 - i. Signature of responsible Testing Laboratory Officer.
 - j. Certificates: Manufacturer's certificate that each Product specified meet or exceed specified requirements.
 - k. Qualification Documentation: Submit documentation of experience indication compliance with specified qualification requirements.
- B. Section 017704 - Closeout Procedures and Training: Procedures for closeout submittals.
 - 1. Project Record Documents: Accurately record the following.
 - a. Locations of components and grounding electrodes.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing Work of this Section with minimum 5 years documented experience.
- B. Regulatory Requirements:
 - 1. Products: Listed and classified by Underwriters Laboratories, Incorporated as suitable for the purpose specified and indicated.
 - 2. Work herein shall conform to all applicable laws, ordinances and regulations in accordance with the latest applicable requirements of:
 - a. National Electrical Manufacturer's Associates.
 - b. Standards of National Fire Protection Association (NFPA 72, 90A and 101).
 - c. Underwriter's Laboratories.
 - d. Occupational Safety and Health Agency Standards.
 - e. Illuminating Engineering Society Handbook.
 - f. The International Existing Building Code.
 - g. The International Electrical Code.
 - h. ASHRAE Standard 90.1.
 - i. The International Energy Conservation Code.

1.5 BASIC ELECTRICAL METHODS

- A. Drawings are schematic and diagrammatic. Use judgment and care to install electrical Work to function properly and fit within building construction and finishes. Electrical conductors, conduit, components, not shown or specified, which are required for any device or system to produce a complete and operative system are required to be furnished and installed.
- B. Exact location of outlets is determined from dimension on Drawings, manufacturer's shop drawings, or as may be determined at Project Site. Do not scale Drawings for exact location of any item. Verify item mounting heights as required by project conditions prior to rough-in.

- C. Route conduits and wiring associated with new equipment and systems above ceilings, in existing chases, and concealed within building structure.
- D. Surface mounted raceways or conduit permitted only at locations indicated on Drawings.
- E. Circuit grouping, conduit or cable runs and home runs are indicated with number of conductors shown in each raceway to clarify operation and function of various systems. Provide proper number of conductors and conduits or cables to provide operative system as indicated on Contract Documents. Do not regroup any feeder circuits, branch circuits, home runs, and zone alarms at any point, from that shown on Contract Documents. Each conduit run shall contain no more than (6) current carrying conductors.
- F. Branch and home run circuits are indicated as 2, 3, or 4 wire circuits unless otherwise noted. Do not connect two ungrounded conductors to same circuit breaker/fused switch in any panel. Circuit runs consist of a maximum of five conductors; 3 phase conductors, 1 neutral conductor, and 1 equipment ground conductor, unless otherwise noted. Do not splice branch circuit conductors in any panels, safety switches, or circuit breakers in separate enclosures.
- G. The sharing of neutral conductors for multiwire branch circuits is prohibited. All branch circuits shall contain individual neutrals.
- H. Proposed equipment, switches or devices, shown mounted on and/or adjacent to equipment, which if installed, would impair proper operation of existing or new equipment, shall be removed and relocated by Contractor as required so equipment will function properly. Notify Contracting Officer immediately if any such condition exists.
- I. Seal and make permanently watertight penetrations by electrical raceways or equipment through ceilings, walls or floors.
 - 1. Seal penetrations in non-fire rated ceilings, walls or floors material specified in Section 079200 – Joint Sealants.
 - 2. Seal penetrations in fire rated walls with material specified in Section 078400 - Firestopping.
- J. Tighten electrical connectors and terminals, including screws and bolts, in accordance with equipment manufacturer's published torque tightening values for equipment connectors. Where manufacturer's torqueing requirements are not indicated, tighten connectors and terminals to comply with tightening torques specified in UL 486A, and NFPA 70.
- K. Install equipment and materials to provide required maintenance and code working clearance for servicing and maintenance. Coordinate final location of concealed equipment and devices requiring access with final location of required access panels and doors. Allow required space for removal of parts that require replacement or servicing.
- L. Remove existing equipment, lighting fixtures, switches, and receptacles as required to facilitate proposed installation and as specified in Section 024119 - Selective Structure Demolition. Remove existing wiring and conduit serving items to be removed. Conduit in inaccessible areas shall be cut off below finished surfaces and existing surface patched to match existing. Provide blank plates on existing flush mounted outlet boxes that will be abandoned. Remove all abandoned conductors from raceways.

PART 2 - PRODUCTS

2.1 GROUNDING AND BONDING

- A. Grounding System Resistance: Five ohm.
- B. Mechanical Connectors: Bronze.
- C. Electrode Conductor:
 - 1. Material: Bare stranded copper.

2.2 HANGERS AND SUPPORTS

- A. Product Requirements: Furnish and install approved materials, sizes, and types of anchors, fasteners, and supports to carry loads of equipment and conduit, including weight of wire in conduit plus 300 pounds.
- B. Materials and Finishes: Corrosion resistive.
- C. Anchors and Fasteners:
 - 1. Steel Structural Elements: Beam clamps and welded fasteners.
 - 2. Concrete Surfaces: Self-drilling anchors and expansion anchors.
 - 3. Hollow Masonry, Plaster, and Gypsum Board Partitions: Toggle bolts and hollow wall fasteners.
 - 4. Solid Masonry Walls: Expansion anchors.
 - 5. Sheet Metal: Sheet metal screws.
 - 6. Wood: Wood screws.

2.3 ELECTRICAL IDENTIFICATION

- A. Nameplates:
 - 1. Engraved three-layer laminated phenolic plastic, white letters on black background.
 - 2. Locations:
 - a. Each electrical distribution and control equipment enclosure.
 - b. Communication cabinets.
 - c. Terminal Cabinets.
 - d. Individual motor starter.
 - e. Separately enclosed circuit breakers.
 - f. Panelboards
 - g. Transformers.
 - h. Pull boxes.
 - i. Lighting contactor/control panel enclosure.
 - j. Relays.
 - k. Switches and disconnects.
 - 3. Letter Size:
 - a. Use 1/8 inch letters for identifying individual equipment and loads.
 - b. Use 1/4 inch letters for identifying grouped equipment and loads.
- B. Wire and Cable Markers:
 - 1. Description: Cloth tape or tubing type wire markers.
 - 2. Locations: Each conductor at panelboard gutters, pull boxes, outlet and junction boxes, and each load connection.
 - 3. Identification:

- a. Power and Lighting Circuits: Branch circuit or feeder number indicated on Drawings.
 - b. Control Circuits: Control wire number indicated on schematic and interconnection diagrams on Drawings.
- C. Arc Flash Warning Signs: Furnish signs in accordance with NEC Article 110.16, warning of potential arc flash hazard and requiring suitable Personal protective equipment. Locate and install signs per INSTALLATION Section of this specification.
- D. Confined space markings: Work within electrical manholes and underground vaults must comply with "confined space" OSHA requirements. Manhole covers and the entrance to underground vaults shall be stamped or marked as "CONFINED SPACE – PERMIT REQUIRED".
- E. Receptacles and Switches: All coverplates for receptacles and switches shall be labeled with the branch circuit number. Label shall be machine generated and permanently affixed to the outside of the coverplate.

2.4 MOTOR STARTERS, CONTROLS, AND CONNECTIONS TO MECHANICAL EQUIPMENT

- A. Manufacturers: Subject to compliance with project requirements, manufacturers offering Products which may be incorporated in the Work include the following:
 - 1. Allen-Bradley Company, Milwaukee, WI (414) 382-2000.
 - 2. Cutler-Hammer Eaton Corp, Milwaukee, WI (800) 833-3927.
 - 3. Square D Company, Palatine, IL (847) 397-2600.
 - 4. General Electric Company, Plainville, CT (860) 747-7111.
 - 5. Siemens Energy and Automation, Alpharetta, GA (800) 964-4114.
 - 6. Section 016000 - Product Requirements: Product options and substitutions. Substitutions: Permitted.
- B. Motor Starters
 - 1. Provide manual, single phase, 120/277V, toggle type, motor rated switches with thermal overload element (sized at 115 percent of full load current) for fractional horsepower motors not requiring automatic control interfaces.
 - 2. Provide across-the-line, AC magnetic motor starters in applications where controls other than manual on and off are involved. Motor starters shall be UL labeled. Provide starters with the following features:
 - a. Rating for the voltage and current imposed.
 - b. Enclosure for the application usage: NEMA 1 for dry, indoors, NEMA 3R for outdoors, etc.
 - c. Control circuit voltage and amperage to match coil voltage and ratings of control apparatus.
 - d. Control transformers with primary and secondary fusing for control circuits, as required.
 - e. Overload elements for every conductor leg above ground. Elements are to be "thermal alloy" type, resettable and properly sized to motor nameplate rating. Elements located near boilers, heat strips, duct heaters or other heat sources or where heating by conduction or radiation can occur, shall be ambient temperature compensated types.
 - f. Adjustable phase loss/phase reversal protection (0-15 seconds), factory set at 7 seconds and a minimum of two field convertible auxiliary contacts.
 - g. Cover-mounted control switch is to be a "start-stop" or "hand-off-auto" type with "running" and "auto" pilot lights, as required by the control sequence. A suitable reset device for manually resetting overcurrent trip shall be provided.
 - 3. Starters for motors 10 hp or less shall be connected to automatically return the motor to service after a power interruption. Starters for motors over 10 hp shall be equipped with time delay relays so that after a power resumption and after a preset delay of 0-30 seconds, the motor shall automatically be returned to service.
 - 4. Combination magnetic motor starter/fused disconnect unit shall be utilized wherever possible.

- C. Furnish and Install the Following:
1. Conduit, wiring and electrical connections to motors, safety switches, starters, relays, electrical interlock circuits, valves, unit heaters, fan coil units, air handling units, and other similar equipment, required for complete and ready for operation. Coordinate with and review other sections of the specifications describing electrical equipment in order to fully understand the wiring requirements.
 2. Starters as indicated on Drawings except factory provided starters such as those physically mounted on the unit or any piece of equipment where starter is furnished as an integral part of the equipment.
 3. Electrical line voltage control components and installation as specified in Division 26 Sections.
 4. Furnish and install low voltage (below 50 volts) control wiring as indicated on Drawings using metallic conduit and No. 12 type THHN wire, minimum.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Section 017300 - Execution: Verification of existing conditions before starting work.
- B. Verification of Conditions: Verify that field measurements, surfaces, substrates and conditions are as required, and ready to receive Work.
- C. Report in writing to the USPS Project Manager prevailing conditions that will adversely affect satisfactory execution of the Work of this Section. Do not proceed with Work until unsatisfactory conditions have been corrected.
- D. By beginning Work, Contractor accepts conditions and assumes responsibility for correcting unsuitable conditions encountered at no additional cost to the United States Postal Service.

3.2 INSTALLATION - GROUNDING AND BONDING

- A. Provide grounding electrode conductor and connect to reinforcing steel at the E-house on the roof per the manufacturer's approved shop drawings.
- B. Provide bonding and grounding in conformance with NFPA 70.
- C. Equipment Grounding Conductor: Provide separate, insulated conductor within all lighting and power raceways. Terminate each end on suitable lug, bus, or bushing.
- D. Testing and Inspection:
1. Inspect and test in accordance with NETA ATS, where applicable.
 2. Perform inspections and tests listed in NETA ATS, Section 7.13.
 3. Test ground resistance of system with clamp-on ground resistance tester. The resistance of the grounding system shall not exceed 5 ohms. Where tests show resistance-to-ground is over 5 ohms, take appropriate action to reduce resistance to 5 ohms, or less, by driving additional ground rods, lengthening the rods or installing ground enhancing materials; then retest to demonstrate compliance. Install rods at least 8 feet apart.

3.3 INSTALLATION - HANGERS AND SUPPORTS

- A. Install products in accordance with manufacturer's published instructions.

- B. Furnish and install anchors, fasteners, and supports in accordance with NECA SI.
- C. Do not fasten supports to pipes, ducts, mechanical equipment, and conduit.
- D. Do not use spring steel clips and clamps.
- E. Do not use powder-actuated anchors.
- F. Obtain permission from structural engineer before drilling or cutting structural members.
- G. Fabricate supports from structural steel angle or structural steel channel. Rigidly weld members or use hexagon head bolts to present neat appearance with adequate strength and rigidity. Use spring lock washers under all nuts.
- H. Install surface-mounted cabinets and panelboards with minimum of four anchors.
- I. In wet and damp locations use structural steel channel supports to stand cabinets and panelboards one inch off wall.
- J. Use sheet metal channel to bridge studs above and below cabinets and panelboards recessed in hollow partitions.

3.4 INSTALLATION - ELECTRICAL IDENTIFICATION

- A. Install nameplate parallel to equipment lines.
- B. Secure nameplate to equipment front using stainless steel screws. Use minimum two screws at each end of nameplate.
- C. Secure nameplate to outside surface of door on panelboards and switchboards.
- D. Install Arc Flash Warning Signs on switchboards, panelboards, control panels, meter socket enclosures, and motor control centers likely to require examination, adjustment, servicing, or maintenance while energized. Locate sign so as to be clearly visible to qualified persons before examination, adjustment, servicing, or maintenance of the equipment.

3.5 INSTALLATION – MOTOR STARTERS, CONTROLS, AND CONNECTIONS TO MECHANICAL EQUIPMENT

- A. Verify and check equipment manufacturer's nameplate and installation instructions to obtain exact location of outlets for equipment before installation.
- B. Wire and connect line voltage controls in accordance with approved wiring diagrams. Provide line voltage interlock and control wiring as indicated on Drawings using conduit and No. 12 type THHN wire.

3.6 FIELD QUALITY CONTROL - ELECTRICAL TESTING AND INSPECTION

- A. Section 014000 - Quality Requirements: Field testing and inspection.
- B. Conduct testing to Determine that Electrical Equipment and Systems:
 - 1. Are in conformance with Contract Documents and applicable reference standards.

2. Is properly installed without damage due either to installation or shipment.
 3. Operate correctly, meet design intent, and are performing at optimum level, in safe manner.
- C. Provide a complete written record of operational values to be used as a baseline for future operational testing.
- D. Instrumentation:
1. Provide calibration program that assures applicable test instrumentation is maintained within rated accuracy and directly traceable to National Bureau of Standards.
 2. Calibrate instruments in accordance with following frequency schedule:
 - a. Field Instruments:
 - b. Analog - 6 months maximum.
 - c. Digital - 12 months maximum.
 - d. Leased Specialty Equipment: 12 months. (Where accuracy is guaranteed by lessor.)
 3. Dated Calibration Labels: Visible on test equipment.
 4. Keep records current; Show date and result of instruments calibrated or tested.
 5. Maintain current instrument calibration instruction and procedure for each test instrument.
 6. Calibrating Standard: Higher accuracy than that of instrument being calibrated.
- E. Regulatory Requirements:
1. Safety Practices: Include, but not limited to, the following requirements:
 - a. Occupational Safety and Health Act of 1970 - OSHA.
 - b. Accident Prevention Manual for Industrial Operations, Seventh Edition, National Safety Council, Chapter 4.
 - c. Applicable State and Local Safety Operating Procedures.
 - d. NETA Safety/Accident Prevention Program.
 - e. United States Postal Service Safety Practices.
 - f. NFPA 70E - Electrical Safety Requirements for Employee Workplace.
 - g. American National Standards for Personnel Protection, ANSI Z244.1.
 2. Perform tests with apparatus de-energized except where otherwise specifically required herein.
 3. Testing Laboratory: Provide a designated safety representative present at Project Site and supervise safety operations.
 4. Power Circuits: Conductors shorted to ground by a hot line grounded device approved for the purpose.
 5. Do not proceed until safety representative has determined that it is safe to do so.
 6. Testing Laboratory: Provide sufficient protective barriers and warning signs to conduct specified tests safely.
- F. Tests and inspections include, but are not limited to the following:
1. Proper operation of lights and equipment.
 2. Continuity of raceway system.
 3. Insulation leakage and impedances.
 4. Ground system resistance.
 5. Elimination of reverse rotation and single-phasing of motors.
 6. Sub-system tests indicated in other Sections.
 7. Proper operation of fire alarm system specified in Section 283100.
- G. Load balance all electrical phases, at device, panels, and switchboards.
- H. Perform electrical system testing and inspection as specified in each related Section and as specified in this Section.

END OF SECTION

SECTION 260519

LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

PART 1 - GENERAL

1.1 SUMMARY:

- A. Section Includes:
 - 1. Building wire and cable.
 - 2. Branch-circuit cable.
 - 3. Wiring connectors and connections.
 - 4. Busways.
- B. Related Documents: The Contract Documents, as defined in Section 011000 - Summary of Work, apply to the Work of this Section. Additional requirements and information necessary to complete the Work of this Section may be found in other documents.
- C. Related Sections:
 - 1. As specified in Section 260500 - Common Work Results for Electrical: Basic electrical methods.

1.2 REFERENCES

- A. As specified in Section 260500 – Common Work Results for Electrical.

1.3 SUBMITTALS

- A. As specified in Section 260500 - Common Work Results for Electrical.

1.4 QUALITY ASSURANCE

- A. As specified in Section 260500 – Common Work Results for Electrical.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Section 016000 - Product Requirements: Transport, handle, store, and protect products.
- B. Deliver in accordance with NEMA WC 26.

PART 2 - PRODUCTS

2.1 BUILDING WIRE AND CABLE

- A. Manufacturers: Subject to compliance with project requirements, manufacturers offering Products which may be incorporated in the Work include the following:
 - 1. Alcan Cable, Atlanta, GA (770) 392-2376.
 - 2. Anixter, Inc., Skokie, IL (800) ANIXTER.

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3. General Cable, Highland Heights, KY (800) 526-4391.
4. General Electric, Plainville, CT (860) 747-7111.
5. Okonite, Ramsey, NJ (201) 825-0300.
6. Southwire Company, Carrollton, GA (800) 444-1700.
7. Section 016000 - Product Requirements: Product options and substitutions. Substitutions: Permitted.

B. Description: Single conductor insulated wire.

C. Conductor: Copper, except conductors #1/0 AWG and larger may be compact stranded aluminum if equipped with compression lugs and installed per manufacturer's recommendations and the National Electrical Code.

D. Insulation Voltage Rating: 600 Volts.

E. Insulation: NFPA 70, Type THHN/THWN or Type XHHW-2.

F. Multiconductor cable: Metal clad cable, Type MC with ground wire.

1. Type "MC" cable shall be permitted for use in exposed or accessible ceiling spaces only. Type "MC" cable shall not be utilized above inaccessible hard ceilings or in damp locations. Cable shall be supported and secured where such support does not exceed 3 ft. intervals and shall be properly color coded to identify phase, neutral, ground and switch legs.

2.2 WIRING CONNECTORS

A. Manufacturers: Subject to compliance with project requirements, manufacturers offering Products which may be incorporated in the Work include the following:

1. Buchanan Construction Products, Hackettstown, NJ (800) 610-5201.
2. Thomas and Betts, Memphis, TN (800) 695-1901.
3. 3M, St. Paul, MN (800) 364-3577.
4. Section 016000 - Product Requirements: Product options and substitutions. Substitutions: Permitted.

B. Compression Connectors; Conductor sizes #12 through #6 AWG:

1. Buchanan: 2006S or 2011S.
2. Thomas and Betts.
3. 3M.

2.3 DROP CORDS

NOT USED

2.4 BUSWAYS

A. Summary: This project includes the modification of existing busways. The work includes intercepting existing busway and providing cable tap boxes as required to extend conduit/wire to the new switchboards installed in the E-house on the roof. Refer to the one-line diagram for ratings of existing busways and conduit/wire requirements. Provide new busway and cable tap boxes as required to accommodate the new work shown on the plans.

- B. Manufacturers: Subject to compliance with project requirements, manufacturers offering products which may be incorporated in the Work include the following:
 - 1. Eaton Corporation, Cutler-Hammer Products, Pittsburg, PA (800) 525-2000.
 - 2. General Electric Company (800) 626-2000.
 - 3. Siemens Energy and Automation, Alpharetta, GA (800) 964-4114.
 - 4. Square D Company, Palatine, IL (800) 392-8781.
 - 5. No substitutions permitted.
- C. Provide factory shop drawing submittals for each type of busway.
 - 1. Show fabrication and installation details of busway, including plans, elevations and sections of components and attachments to other construction elements. Designate components and accessories, including clamps, brackets, hanger rods, splice-plate connectors, expansion-joint assemblies, straight lengths and fittings.
 - 2. Seismic-Restraint Details: Signed and sealed by a qualified Professional Engineer, licensed in the state where Project is located, who is responsible for their preparation.
 - a. Design Calculations: Calculate requirements for selecting seismic restraints.
 - b. Detail fabrication, including anchorages and attachments to structure and to supported busways.
- D. Furnish and install a totally enclosed, low-impedance 5 wire, copper, busway system of the indicated ratings with all necessary fittings, power takeoffs, hanging devices and accessories.
 - 1. Materials and installation shall comply with applicable codes, recommended practices and standards of ANSI, IEEE, NEMA and UL. All components of the busway shall be UL listed. Arrangements, details and locations shall be as shown on the drawings and specified herein. The housing shall be of extruded aluminum and all hardware shall be painted to prevent corrosion.
 - 2. Joints shall be of the one-bolt removable/isolatable type with through-bolts that can be checked for tightness without de-energizing the system. The means of visual indication shall be a color change in the head of the bolt. It shall be possible to make up a joint from one side in the event the busway is installed against a wall or ceiling. The joint shall be so designed as to allow removal of any length without disturbing adjacent lengths. Belleville springs shall be provided to give positive pressure over complete contact area.
 - 3. Plug-in and feeder busway shall use identical parts and all multi-stacks shall be phase collected.
 - 4. The maximum hot-spot temperature rise at any point in the busway at continuous rated load shall not exceed 55 degrees C above a maximum ambient temperature of 40 degrees C in any position.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. As specified in Section 260500 – Common Work Results for Electrical.

3.2 PREPARATION

- A. Completely and thoroughly swab raceway before installing wire.

3.3 INSTALLATION - CONDUCTORS

- A. Wiring methods:
 - 1. Concealed Dry Interior Locations: Use only building wire, Type THHN/THWN or Type XHHW-2 insulation in metallic raceway or MC multiconductor cable.

2. Exposed Dry Interior Locations: Use only building wire, Type THHN/THWN or Type XHHW-2 insulation in metallic raceway or MC multiconductor cable.
 3. Above Accessible Ceilings: Use only building wire, Type THHN/THWN or Type XHHW-2 insulation in metallic raceway or MC multiconductor cable.
 4. Wet or Damp Interior Locations: Use only building wire, Type THW or THWN or Type XHHW-2 insulation in raceway.
- B. Install products in accordance with manufacturers published instructions and NECA SI.
 - C. Use solid conductor for feeders and branch circuits 10 AWG and smaller.
 - D. Use stranded conductors for control circuits and final connections to all vibration equipment.
 - E. Use conductor not smaller than 12 AWG for power and lighting circuits.
 - F. Use conductor not smaller than 14 AWG for control circuits.
 - G. Use 10 AWG conductors for 20 ampere, 120 Volt branch circuits longer than 75 feet.
 - H. Use 10 AWG conductors for 20 ampere, 277 Volt branch circuits longer than 200 feet.
 - I. Pull all conductors into raceway at same time.
 - J. Use approved wire pulling lubricant for all building wire.
 - K. Protect exposed cable from damage.
 - L. Neatly train and lace wiring inside boxes, equipment, and panelboards in accordance with NECA Standards.
 - M. Clean conductor surfaces before installing lugs and connectors.
 - N. Make splices, taps, and terminations to carry full ampacity of conductors with no perceptible temperature rise.
 - O. For splices and taps, use only compression connectors for copper or aluminum conductors, 6 AWG and larger. Tape uninsulated conductors and connector with electrical tape to 150 percent of insulation rating of conductor.
 1. Splicing of copper feeder conductors #3 AWG and larger is prohibited.
 2. Splicing of aluminum feeder conductors #1 AWG and larger is prohibited.
 3. Splices within branch circuit or feeder conductors located underground or below grade shall not be provided. All splices shall be terminated above grade.
 - P. Use solderless pressure compression connectors with insulating covers for copper conductor splices and taps, 8 AWG and smaller.
 - Q. Use conductors rated 90 degrees C, inside a ballast compartment or within 6 inches of any ballast.
 - R. Conductor Sizes #8 and Larger: Class B stranding.
 - S. The sharing of neutral conductors for multiwire branch circuits is prohibited. All branch circuits shall contain individual neutral conductors.

3.4 INSTALLATION – BUSWAYS

- A. Horizontal runs of busway shall be UL listed for hanging on 10-foot centers in any position. Vertical riser runs of busway shall be supported with rigid and/or spring hangers. (Max. 16 ft. centers).
- B. Final field measurements shall be made by the contractor prior to release for manufacture to assure coordination with other trades. Contractor shall coordinate routing of busways with field conditions.
- C. Contractor shall provide all necessary mounting hardware as recommended by the manufacturer. Utilize trapeze hangers, spring isolators, and ½ inch all-thread on 10-foot centers. Installation shall comply with local seismic zone requirements.
 - 1. Provide approved manufacturer's standard clamps, hangers, brackets, splice plates, reducer plates, blind ends, expansion joints and connectors. Obtain busway components from a single manufacturer.
- D. Engraved nameplates: ½ inch high black letters on yellow laminated plastic nameplate, engraved with the following wording: WARNING! DO NOT USE BUSWAY AS WALKWAY, LADDER OR SUPPORT.

3.5 CONSTRUCTION

- A. Interface with Other Work:
 - 1. Identify wire and cable using Thomas and Betts type WM vinyl markers.
 - 2. Identify each conductor with its circuit number or other designation indicated on Drawings in all junction, pull, terminal boxes and cabinets. Identify neutrals with common circuit numbers in all junction, pull and terminal boxes, panels and cabinets.

3.6 WIRING COLOR CODE

- A. Comply with the following color code for each voltage system.
- B. 208Y/120 Volt System:
 - 1. Phase A - Black.
 - 2. Phase A Switch Leg - Black with "S" tag.
 - 3. Phase B - Red.
 - 4. Phase B Switch Leg - Red with "S" tag.
 - 5. Phase C - Blue.
 - 6. Phase C - Switch Leg - Blue with "S" tag.
 - 7. Travelers - Yellow.
 - 8. Neutral - White.
 - 9. Equipment Ground - Green.
- C. 480Y/277 Volt System:
 - 1. Phase A - Brown.
 - 2. Phase A Switch Leg - Brown with "S" Tag.
 - 3. Phase B - Orange.
 - 4. Phase B Switch Leg - Orange with "S" Tag.
 - 5. Phase C - Yellow.
 - 6. Phase C Switch -Leg- Yellow with "S" Tag.
 - 7. Travelers - Yellow with "T" Tag.
 - 8. Neutral - Grey.
 - 9. Equipment Ground - Green with Yellow stripe.

- D. Use same color for same phase throughout. Use same colors for switch legs. Travelers shall be yellow. Phase rotation shall be same in all panels. Identify large cables with colored tape.
- E. Provide identification tags on each conductor entering panel, switch, junction box and pull box to identify conductor.

3.7 FIELD QUALITY CONTROL

- A. As specified in Section 260500 – Common Work Results for Electrical.
- B. Cables, 600 Volt or less and size no. 3 or larger, shall be meggered using an industry-approved “megger with a minimum of 500 Volt internal generating voltage. All inspection, cleaning and testing procedures shall be in compliance with the recommendations and standards outlined in the “maintenance testing specifications for electrical power distribution equipment and systems”, latest edition, published by International Electrical Testing Association (NETA). Insulation resistance test values shall be no less than 250 megaohms. A typewritten report of all readings shall be prepared and submitted.

END OF SECTION

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SECTION 260533

RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Metal conduit.
2. Flexible metal conduit.
3. Liquidtight metal conduit.
4. Electrical metallic tubing.
5. Fittings and conduit bodies.
6. Wall and ceiling outlet boxes.
7. Pull and junction boxes.
8. Cable trays.

B. Related Documents: The Contract Documents, as defined in Section 011000 - Summary of Work, apply to the Work of this Section. Additional requirements and information necessary to complete the Work of this Section may be found in other documents.

C. Related Sections:

1. Section 283100 – Fire Emergency Voice/ Alarm Communication System (EVACS).
2. Section 230500 – Common Work Results for HVAC.
3. Section 260500 – Common Work Results for Electrical.
4. Section 262726 – Wiring Devices.

1.2 REFERENCES

A. American Society for Testing and Materials (ASTM):

1. ASTM A 123 - Specification for Zinc (Hot-Galvanized) Coatings on Iron and Steel Products.

B. American National Standards Institute (ANSI):

1. ANSI C80.1 - Rigid Steel Conduit, Zinc Coated.
2. ANSI C80.3 - Electrical Metallic Tubing, Zinc Coated.
3. ANSI C80.5 - Rigid Aluminum Conduit.

C. National Electrical Contractors Association (NECA):

1. NECA "Standard of Installation."

D. National Electrical Manufacturers Association (NEMA):

1. NEMA FB 1 - Fittings, Cast Metal Boxes, and Conduit Bodies for Conduit and Cable Assemblies.
2. NEMA RN 1 - Polyvinyl Chloride (PVC) Externally Coated Galvanized Rigid Steel Conduit and Intermediate Metal Conduit.
3. NEMA TC 2 - Electrical Plastic Tubing (EPT) and Conduit (EPC-40 and EPC-80).
4. NEMA TC 3 - PVC Fittings for Use with Rigid PVC Conduit and Tubing.
5. NEMA VE 1 - Metallic Cable Tray Systems.

E. National Fire Protection Association (NFPA):

1. NFPA 70 - National Electrical Code.

1.3 SYSTEM DESCRIPTION

A. Design Requirements

1. Conduit Size: NFPA 70, unless indicated otherwise on Drawings.

1.4 QUALITY ASSURANCE

A. Regulatory Requirements:

1. Conform to requirements of NFPA 70.
2. Provide products listed and classified by Underwriters Laboratories, Incorporated.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Section 016000 - Product Requirements: Transport, handle, store, and protect products.
- B. Accept conduit on site. Contractor inspect for damage prior to acceptance.
- C. Protect conduit from corrosion and entrance of debris by storing above grade. Provide appropriate covering.

PART 2 - PRODUCTS

2.1 CONDUIT REQUIREMENTS

- A. Where conduit is required by standards, codes, or required elsewhere, minimum size shall be as follows:
 1. 1/2 inch for power and branch circuit wiring, unless indicated otherwise. All homerun conduits shall be 3/4 inch, minimum.
 2. 3/4 inch for low voltage, control, intercom, security and communications unless indicated otherwise.

2.2 METAL CONDUIT

- A. Manufacturers: Subject to compliance with project requirements, manufacturers offering specified items which may be incorporated in the Work include the following:
 1. Allied Tube & Conduit, Harvey, IL (800) 882-5543.
 2. Wheatland Tube Co., Collinswood, NJ (800) 257-8182.
 3. Republic Wire & Cable, Rocky Mount, NC (800) 533-8198.
 4. Section 016000 - Product Requirements: Product options and substitutions. Substitutions: Permitted.
- B. Rigid Galvanized Steel Conduit (GRC): ANSI C80.1, UL6.
- C. Intermediate Metal Conduit (IMC): UL1242.
- D. Fittings and Conduit Bodies: NEMA FB1 Material to match conduit.

2.3 FLEXIBLE METAL CONDUIT (FMC)

- A. Manufacturers: Subject to compliance with project requirements, manufacturers offering specified items which may be incorporated in the Work include the following:
 - 1. Hubbell, Millford, CT (203) 882-4800.
 - 2. Electriflex, Roselle, IL (800) 323-6174.
 - 3. O-Z/Gedney, Farmington, CT (860) 677-5541.
 - 4. Section 016000 - Product Requirements: Product options and substitutions. Substitutions: Permitted.
- B. Description: Interlocked steel and aluminum construction.
- C. Fittings: NEMA FB 1.

2.4 LIQUIDTIGHT FLEXIBLE METAL CONDUIT

- A. Manufacturers: Subject to compliance with project requirements, manufacturers offering specified items which may be incorporated in the Work include the following:
 - 1. Hubbell, Millford, CT (203) 882-4800.
 - 2. Electriflex, Roselle, IL (800) 323-6174.
 - 3. Anixter, Inc., Skokie, IL (800) ANIXTER.
 - 4. Section 016000 - Product Requirements: Product options and substitutions. Substitutions: Permitted.
- B. Description: Interlocked steel and aluminum construction with PVC jacket.
- C. Fittings: NEMA FB 1.

2.5 ELECTRICAL METALLIC TUBING (EMT)

- A. Manufacturers: Subject to compliance with project requirements, manufacturers offering specified items which may be incorporated in the Work include the following:
 - 1. Allied Tube & Conduit, Harvey, IL (800) 882-5543.
 - 2. Wheatland Tube Co., Collinswood, NJ (800) 257-8182.
 - 3. Republic Wire & Cable, Rocky Mount, NC (800) 533-8198.
 - 4. Section 016000 - Product Requirements: Product options and substitutions. Substitutions: Permitted.
- B. Description: ANSI C80.3; galvanized tubing.
- C. Fittings and Conduit Bodies: NEMA FB 1; steel set-screw type. Die-cut Zinc not permitted.

2.6 NONMETALLIC CONDUIT

NOT USED

2.7 FITTINGS

- A. Manufacturer: Raco, Inc., South Bend, IN (219) 234-7151.
 - 1. Subject to compliance with project requirements, one of the following manufacturers may also be provided:

- a. Steel City.
 - b. 0-Z/Gedney.
 - 2. Section 016000 - Product Requirements: Product options and substitutions. Substitutions: Permitted.
- B. Conduits 1/2 inch thru 1 inch enter junction boxes, pull boxes, panels, cabinets, and gutters, provide the following:
- 1. Rigid Conduit: Raco 1222, 1223, 1224.
 - 2. Flexible Metal Conduit: Raco 3302, 3303, 3304, 3305, 3306, 3308.
 - 3. Liquidtight Flexible Metal Conduit: Raco 3511, 3512, 3513, 3541, 3542, 3543.
- C. Conduits 1-1/4 inch and larger entering junction boxes, pull boxes, panels, cabinets, and gutters, provide Insulated throat type bushings; Raco 1225, 1226, 1228, 1230, 1232, 1234, 1236.
- D. Provide threaded joint connectors and malleable iron no thread compression box connectors on rigid conduit. Do not provide fittings requiring set screws or indenter type applications including BM connectors.
- E. Provide only steel set-screw couplings and connectors on EMT conduit.

2.8 CONDUIT STRAPS AND HANGERS

- A. Strap Manufacturer: Raco, Inc., South Bend, IN (219) 234-7151
- 1. Subject to compliance with project requirements, one of the following manufacturers may also be provided:
 - a. Steel City.
 - b. Unistrut.
 - 2. Section 016000 - Product Requirements: Product options and substitutions. Substitutions: Permitted.
- B. Hanger Manufacturer: Steel City/Thomas & Betts, Memphis, TN (800) 888-0211.
- 1. Subject to compliance with project requirements, one of the following manufacturers may also be provided:
 - a. Unistrut.
 - b. Raco.
 - 2. Section 016000 - Product Requirements: Product options and substitutions. Substitutions: Permitted.
- C. Straps: Two-hole push on stamped steel straps on surface areas such as concrete, masonry, wide flange beams, columns, and wood.
- 1. Rigid Conduit: Raco 2232, 2233, 2234, 2235, 2336, 2238.
 - 2. Electrical Metallic Tubing: Raco 2092, 2093, 2094.
- D. Hangers: Lay-in pipe hanger.
- 1. Conduits 1-1/4 Inch and Larger: Steel-City C-149.
- E. Trapeze Hangers for Conduits Grouped Together: Hangers consisting of all thread rods sized as required and Kingdorff channel.
- 1. Steel City B-909, 1/2 inch x 1-7/8 inch (12 gauge) with single bolt channel pipe straps.
 - 2. Steel City C-105, C-105-AL, or C-106, (no wire permitted for anchoring conduit).

2.9 SEAL-OFF AND EXPANSION FITTINGS

- A. Seal-Off Fitting Manufacturer: Crouse-Hinds, Syracuse, NY (315) 477-5531.
 - 1. Subject to compliance with project requirements, one of the following manufacturers may also be provided:
 - a. Killark.
 - b. Appleton.
 - c. O-Z/Gedney.
 - 2. Section 016000 - Product Requirements: Product options and substitutions. Substitutions: Permitted.
- B. Expansion Fitting Manufacturer: OZ/Gedney, Farmington, CT (860) 677-5541
 - 1. Subject to compliance with project requirements, one of the following manufacturers may also be provided:
 - a. Crouse-Hinds.
 - b. Killark.
 - c. Appleton.
 - 2. Section 016000 - Product Requirements: Product options and substitutions. Substitutions: Permitted.
- C. Provide seal-off fittings where required by governing authority, code, or as indicated on Drawings.
 - 1. Vertical Runs: Crouse-Hinds Type EYS.
 - 2. Horizontal and Vertical Runs: Crouse-Hinds Type EZS.
 - 3. Elbows: Crouse-Hinds Type EYS.
 - 4. Sealing Compound: "Chico X" fiber and "Chico A".
- D. Provide expansion fittings in conduits where indicated on Drawings or where required to pass through expansion joints embedded in concrete.
 - 1. O-Z/Gedney Type AX.

2.10 OUTLET BOXES

- A. Sheet Metal Outlet Boxes: NEMA OS 1, galvanized steel.
 - 1. Luminaire and Equipment Supporting Boxes: Rated for weight of equipment supported; include 1/2 inch male fixture studs where required.
 - 2. Receptacle and Device Boxes - 4 inch square x 2-1/8 inch deep with raised, single gang, plaster ring unless indicated otherwise.
 - 3. Switch Boxes: 2 inch x 4 inch x 2-1/8 inch deep, unless indicated otherwise.
 - 4. Communication Boxes: 4 inch square x 3 inch deep with raised gang plaster ring unless indicated otherwise.
- B. Cast Boxes: NEMA FB 1, Type FD, aluminum. Provide gasketed cover by box manufacturer. Provide threaded hubs.
- C. Wall Plates for Finished Areas: Specified in Section 262726.

2.11 PULL AND JUNCTION BOXES

- A. Sheet Metal Boxes: NEMA OS 1, galvanized steel.

2.12 CABLE TRAY

- A. Manufacturers: Subject to compliance with project requirements, manufacturers offering specified items which may be incorporated in the Work include the following:
1. Chalfant Cable Trays, Cleveland, OH (216) 521-7922.
 2. Cable Management Solutions, Incorporated, Deer Park, NY (800) 308-6788.
 3. GS Metals Corporation, Pinckneyville, IL (800) 851-9341.
 4. Southwire Co., Carrollton, GA (800) 444-1700.
 5. Mono-Systems, Inc., Rye Brook, N.Y. (914) 934-2075.
 6. Section 016000 - Product Requirements: Product options and substitutions. Substitutions: Permitted.
- B. Provide factory shop drawing submittals for each type of cable tray.
1. Show fabrication and installation details of cable tray, including plans, elevations and sections of components and attachments to other construction elements. Designate components and accessories, including clamps, brackets, hanger rods, splice-plate connectors, expansion-joint assemblies, straight lengths and fittings.
 2. Submit a schedule indicating which feeders are contained in each cable tray (use one-line diagram designations) and cable tray size (depth/width).
 3. Seismic-Restraint Details: Signed and sealed by a qualified Professional Engineer, licensed in the state where Project is located, who is responsible for their preparation.
 - a. Design Calculations: Calculate requirements for selecting seismic restraints.
 - b. Detail fabrication, including anchorages and attachments to structure and to supported cable trays.
- C. Description: NEMA VE 1, ladder tray.
- D. Material: Steel or aluminum.
- E. NEMA Load/Span Class: 20C
- F. Finish: ASTM A 525, pre-galvanized or clear aluminum.
- G. Provide with compartment dividers as indicated on drawings. Same materials and finish as tray.
- H. Straight Section Rung Spacing: 9 inches on center (ladder tray only).
- I. Provide approved manufacturer's standard clamps, hangers, brackets, splice plates, reducer plates, blind ends, barrier strips, connectors, and grounding straps. Obtain cable tray components from a single manufacturer.
- J. Engraved Nameplates: 1/2 inch high black letters on yellow laminated plastic nameplate, engraved with the following wording:

WARNING! DO NOT USE CABLE TRAY AS WALKWAY, LADDER, OR SUPPORT. USE ONLY AS MECHANICAL SUPPORT FOR CABLES AND TUBING!

2.13 FLOOR BOXES

NOT USED

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Section 017300 - Execution: Verification of existing conditions before starting work.
- B. Verification of Conditions: Verify that field measurements, surfaces, substrates and conditions are as required, and ready to receive Work.
 - 1. Verify routing and termination locations of conduit prior to rough-in.
- C. Report in writing to the USPS Project Manager prevailing conditions that will adversely affect satisfactory execution of the Work of this Section. Do not proceed with Work until unsatisfactory conditions have been corrected.
- D. By beginning Work, Contractor accepts conditions and assumes responsibility for correcting unsuitable conditions encountered at no additional cost to the United States Postal Service.

3.2 INSTALLATION - RACEWAYS

- A. Install in accordance with the following schedule, unless indicated otherwise on Drawings: Plastic flexible PVC conduit shall not be permitted. Flexible metal conduit shall be permitted for electrical power and security wiring only and not permitted for fire alarm cables.
 - 1. Above suspended ceilings: Galvanized or sherardised thick wall rigid steel (GRC) or electrical metallic tubing (EMT).
 - 2. Metal stud walls: Galvanized or sherardised thick wall rigid steel (GRC) or electrical metallic tubing (EMT).
 - 3. Exposed interior areas: Galvanized or sherardised thick wall rigid steel (GRC) or electrical metallic tubing (EMT).
 - 4. Exposed exterior areas: Galvanized or sherardised thick wall rigid steel (GRC).
 - 5. Underground or below slab areas: Rigid polyvinyl chloride conduit (PVC-Sched. 40).
- B. Install conduit in accordance with NECA "Standard of Installation."
- C. Conduit routing indicated on Drawings are approximate locations unless dimensioned. Route parallel and perpendicular to building construction for complete wiring system regardless whether exposed or concealed.
- D. Arrange supports to prevent misalignment during wiring installation.
- E. Support conduit using coated steel or malleable iron straps, lay-in adjustable hangers, clevis hangers, and split hangers.
- F. Group related conduits; support using conduit rack. Construct rack using approved steel channel and provide space on each rack for 25 percent additional conduits.
- G. Fasten conduit supports to building structure and surfaces under provisions of this section.
- H. Do not support conduit with wire or perforated pipe straps in any type structure. Remove wire used for temporary supports. Steel tie wire may be used to anchor conduit down to reinforcing rods in concrete encasement only.
- I. Do not attach conduit or boxes to ceiling support wires. Boxes shall be independently supported.

- J. Arrange conduit to maintain headroom and present neat appearance. Maintain required clearance between conduit and piping.
- K. Route all conduit, whether exposed or concealed, parallel and perpendicular to walls, ceilings, building structures, etc.
- L. Maintain 12 inch clearance between conduit and surfaces with temperatures exceeding 104 degrees F.
- M. Cut EMT conduit square using saw or pipe cutter; de-burr cut ends and ream. Bring conduit to shoulder of fittings; fasten securely.
- N. Use conduit hubs or sealing locknuts to fasten conduit to sheet metal boxes in damp and wet locations and to cast boxes. Use Myers hub connectors on all conduit entering top or sides of all junction boxes, pull boxes, wiring gutters, exposed to weather.
- O. The number of conduit bends per box shall comply with NFPA 70, Article 360. Conduit bends for "SCS" installation shall not exceed two 90 degree bends or exceed a total of 180 degrees of bend between pull boxes or conduit ends. Pull boxes shall be sized per NEC codes per conduit installed. Use conduit bodies to make sharp changes in direction, as around beams. Use hydraulic one-shot bender to fabricate or use factory elbows for bends in metal conduit larger than 2 inch size.
- P. Avoid moisture traps; provide junction box with drain fitting at low points in conduit system.
- Q. Provide suitable fittings to accommodate expansion and deflection where conduit crosses control and expansion joints.
- R. Provide suitable nylon pull string or #14 AWG steel wire in each conduit excluding sleeves and nipples.
- S. Ground and bond conduit per NFPA 70.
- T. Conduits shall be sized as indicated on Drawings. Where sizes are not indicated, conduit shall be sized per NFPA 70.
- U. Cap all upturned conduits during construction rough-in to prevent moisture or debris from entering. Pull through each and every conduit a dry swab of sufficient size to remove any and all moisture.
- V. Maximum length of flexible metal conduit (Greenfield), or flexible liquidtight shall be 5 feet.
- W. Assure ground continuity on all branch circuitry conduits with two locknuts, one inside and one outside of all boxes, cabinets and gutters for rigid conduit. One locknut inside of all boxes, cabinets, and gutters for EMT.
- X. Provide conduit supports as follows:
 - 1. Galvanized rigid thick wall conduit (GRC), intermediate grade rigid conduit (IMC) and electrical metallic conduit (EMT) within three feet of all outlet boxes, junction boxes, cabinets, gutters, or fittings. Horizontally anchored at 10 foot maximum intervals. Other spacings indicated on Drawings.
 - 2. Flexible metal conduit (Greenfield) and liquid-tight flexible metal conduit (Sealtite), within 12 inches of all outlet boxes, junction boxes, cabinets, gutters, or fittings and bends or turns. Horizontally anchored at 4-1/2 foot intervals. 1/2 inch minimum size permitted.

3.3 INSTALLATION - BOXES

- A. Install boxes in accordance with NECA "Standard of Installation."

- B. Install in locations as shown on Drawings, and as required for splices, taps, wire pulling, equipment connections and compliance with NFPA 70.
- C. Set wall mounted boxes at elevations to accommodate mounting heights indicated or as required for specific project requirements. Orient boxes to accommodate wiring devices as specified in Section 262726.
- D. Electrical boxes are indicated on Drawings in approximate locations unless dimensioned. Adjust box location up to 10 feet if required to accommodate intended purpose with no additional cost to contract. Coordinate mounting heights and locations of outlets mounted above counters, benches, and backsplashes.
- E. Maintain headroom and present neat mechanical appearance.
- F. Install pull boxes and junction boxes above accessible ceilings and in unfinished areas only. Install pull boxes in freezer and dock area above bottom chord of structural joist. Pullboxes sized in excess of 12 inches shall be equipped with hinged and hasped covers.
- G. Install outlet and junction boxes within inaccessible ceiling areas, no more than 6 inches from ceiling access panel or from removable recessed luminaire.
- H. Locate outlet boxes to allow luminaires positioned as indicated on Drawings.
- I. Align adjacent wall mounted outlet boxes for switches, thermostats, and similar devices.
- J. Locate flush mounted box in masonry wall to require cutting of masonry unit corner only. Coordinate masonry cutting to achieve neat opening. Use approved raised gang covers in masonry and stud walls.
- K. Flush mounted boxes shall not be mounted back-to-back in walls; provide minimum 6 inches separation. Provide minimum 24 inches separation in acoustic rated walls.
- L. Secure flush mounted box to interior wall and partition studs. Accurately position to allow for surface finish thickness. Use approved stamped steel bridges to fasten box between studs.
- M. Install flush mounting box without damaging wall insulation or reducing its effectiveness.
- N. Use approved adjustable steel channel fasteners spanning joist for hung ceiling outlet box.
- O. Provide factory sectioned multi-gang boxes where more than one adjacent device is to be mounted. Sectional boxes shall not be permitted.

3.4 INSTALLATION - CABLE TRAYS

- A. Install trays level and plumb in accordance with manufacturer's published instructions.
- B. Install metallic cable tray in accordance with NEMA VE 2.
- C. Support cable trays as follows:
 - 1. Use anchors and fasteners as specified in Section 260500.
 - 2. Provide supports at each connection point and at the end of each run.
 - 3. Design supports including attachment to structure to carry the greater of calculated load multiplied by a factor of four or the calculated load plus 200 lb.

- D. Locate cable tray with sufficient space to permit access for installing cables.
- E. Make changes in directions and elevations using standard fittings. Use expansion connectors where required.
- F. Ground and bond cable tray under provisions of Section 260500.
- G. Provide continuity between tray components.
- H. Use antioxidant compound to prepare aluminum contact surfaces before assembly.
- I. Provide #2 AWG bare copper equipment grounding conductor through entire length of tray; bond to each section.
- J. Connections to tray may be made using mechanical connectors.
- K. Install warning signs at 50 feet on center along cable tray, located to be visible.

3.5 FIELD QUALITY CONTROL

- A. Section 014000 - Quality Requirements: Field inspection.
- B. Inspect conduit installation, types, sizes, fittings and attachment to structure.
- C. Inspect box installation, locations, connection to conduit, and attachment to structure.
- D. Inspect cable tray installation, locations, connection to conduit, and attachment to structure.

3.6 ADJUSTING

- A. Adjust flush-mounting outlets to make front flush with finished wall material.
- B. Install knockout closures in unused box openings.

3.7 CLEANING

- A. Clean interior of boxes to remove dust, debris, and other material.
- B. Clean exposed surfaces and restore finish like new.

END OF SECTION

USPS Mail Processing Facility Specification issued: 10/1/2020
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SECTION 262413

SWITCHBOARDS

PART 1 - GENERAL

1.1 SUMMARY

- A. The contractor shall provide and install distribution switchboards as herein specified and shown on related electrical drawings.
- B. Related Documents: The Contract Documents, as defined in Section 011000 - Summary of Work, apply to the Work of this Section. Additional requirements and information necessary to complete the Work of this Section may be found in other Documents.
- C. Related Sections include the following:
 - 1. Section 260500 - Common Work Results for Electrical.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's printed product data.
- B. Drawings: Submit shop drawings for approval. Include components, materials, finishes, detailed plan and elevation views, required conduit rough-in openings, anchors and accessories.

1.3 RELATED STANDARDS

- A. The switchboard shall be designed, manufactured and tested according to the latest applicable version of the following standards:
 - 1. ANSI/NFPA 70 – National Electrical Code (NEC)
 - 2. NEMA PB2 – Deadfront Distribution Switchboards
 - 3. UL 891 – Deadfront Switchboards

1.4 QUALITY ASSURANCE

- A. Manufacturer: For equipment required for the work of this section, provide product which is the responsibility of one manufacturer.
- B. Performance Requirements: Provide switchboards manufactured in accordance with Article 408 of the latest National Electrical Code and applicable portions of the NEMA PB2, UL 891 and NFPA 70, the National Electrical Code.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials and products in factory labeled packages. Store and handle in strict compliance with manufacturer's instructions and recommendations. Protect from damage from weather, excessive temperatures and construction operations.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Subject to compliance with project requirements, manufacturers offering Products which may be incorporated in the Work include the following:
 - 1. Eaton Corporation, Cutler-Hammer Products, Pittsburg, PA (800) 525-2000.
 - 2. General Electric Company (800) 626-2000.
 - 3. Siemens Energy and Automation, Alpharetta, GA (800) 964-4114.
 - 4. Square D Company, Palatine, IL (800) 392-8781.
 - 5. No substitutions permitted.
- B. For the equipment specified herein, the manufacturer shall be ISO 9000, 9001 or 9002 certified.
- C. The manufacturer of this equipment shall have produced similar electrical equipment for a minimum of ten (10) years.

2.2 GENERAL REQUIREMENTS

- A. Construction
 - 1. Switchboard shall be of the modular type construction, constructed in accordance with the latest NEMA PB-2 and UL 891 standards, with the required number of vertical sections bolted together to form one metal enclosed rigid switchboard. The sides, top and rear shall be covered with removable screw-on code gauge steel plates. Switchboard shall include all protective devices and equipment as listed on drawings with necessary interconnections, instrumentation and control wiring. All groups of control wires leaving the switchboard shall be provided with terminal blocks with suitable numbering strips. System voltage, amperage and interrupting capacity shall be as indicated on the drawings. Enclosure construction shall be NEMA 1 indoor.
- B. Bus Requirements
 - 1. The bus shall be of sufficient size to limit the temperature rise to 65 degree C, based on UL tests. The bus shall be braced and supported to withstand mechanical forces exerted during a short circuit from a power source having the available short circuit current as indicated on the drawings. Provide a full capacity neutral where a neutral is indicated on the drawings. The through bus on the end section shall be extended and pre-drilled to allow the addition of future sections. Ground bus and grounding conductor lug shall be furnished. Ground bus shall extend the entire length of the switchboard and shall be firmly secured to each vertical section. Bus Material shall be silver-plated copper.
- C. Main Protective Device
 - 1. Switchboards shall be double-ended type equipped with draw-out, low voltage, power circuit breakers for the "mains and tie" breakers and molded case feeder circuit breakers. Low voltage power circuit breakers shall be provided with a drawout frame and current rating as shown on the drawings. It shall be electrically operated power circuit breaker with a solid-state trip device providing adjustments for long time pick up and delay, short time pickup and delay, instantaneous, ground fault pickup and delay, and zone selective interlocking for short time and ground fault.
 - a. Insulated case, draw-out circuit breakers shall comply with the requirements of UL489 and UL1066. Breakers shall be three-pole, 100% rated type:
 - 1) Circuit breaker element shall have connected, test and disconnected position indicators, spring charged/discharged indicators and circuit breaker open or closed and ready to close indicators all of which shall be visible to the operator with the compartment door closed. It shall be possible to rack the circuit breaker element

- from the connected to the disconnected position with the compartment door closed, otherwise known as “through the door drawout”.
- 2) Provide interlocks to prevent racking the circuit breaker unless the breaker is open.
 - 3) Ratings: Interrupting up to 100 kA at 480V without fuses. Short time current ratings for each circuit breaker shall be as indicated on the drawings or data tables. Circuit breakers shall be 600-volt class.
 - 4) Operating Mechanism: Mechanically and electrically trip-free, stored-energy operating mechanism with the following features:
 - i. Normal Closing Speed: independent of both control and operator
 - ii. Electrical operator, field installable with manual charging
 - iii. Operations counter
 - 5) Each low voltage circuit breaker shall be equipped with self-powered, microprocessor-based trip-device to sense overload and short circuit conditions. The device shall measure true RMS current. The tripping system shall consist of high accuracy (<1%) Rogowski coil sensors on each phase, a release mechanism and the following features:
 - i. Field Installable and interchangeable front mounted trip units. Trip units can be upgraded for future expansion in functionality, such as communication.
 - ii. Functions: Long time, short time and extended instantaneous protection function shall be provided (EIP) to allow the breaker to be applied at the withstand rating of the breaker with minus 0% tolerance so that there is no instantaneous override whatsoever. This feature shall furthermore allow the circuit breaker to be applied up to the full instantaneous rating of the breaker on systems where the available fault current exceeds the breakers withstand rating. Each shall have an adjustable pick-up setting. In addition, long time and short time bands shall each have adjustable time delay. Short time function shall include a switchable I2t ramp and optionally I4t to improve co-ordination with fuses or inverse relays.
 - iii. A software program shall be made available free of charge to support system co-ordination studies. The software will allow time current curves to be generated for the chosen settings.
 - iv. Individual LED's shall indicate an overcurrent, short circuit or ground fault trip condition.
 - v. Time-current characteristics shall be field adjustable locally or optionally remotely via a bus system ModBus.
 - vi. Current Adjustability shall be accomplished by use of dial setting and rating plugs on trip units. The rating plug shall be front mounted and upgradeable. Upgrades to the rating plugs shall not require changes to the CT.
 - vii. Pickup Points: 10 Long Time Settings.
 - viii. Field Installable Ground-fault protection with at least three time-delay bands and an adjustable current pickup and an I2t ramp. Arrange to provide protection for three-wire service.
 - ix. Field installable zone selective interlocking: Connections will be made between main, tie and feeder circuit breakers to ensure that the circuit breaker closest to the fault trips for short time and ground fault conditions.
 - x. A LCD display shall be available to simplify settings & viewing data locally.
 - xi. Field installable configurable analog and digital output relays shall be available to connect directly to the trip unit.
 - xii. Waveform capture and display shall be accomplished on the trip units LCD display.
 - xiii. A visible pin shall indicate wear. In addition to the visible pin indicator, estimated contact wear shall be calculated in the trip unit.
 - xiv. Terminal Block Connections shall be front mounted and utilize screw type terminals.

- xv. Padlocking Provisions shall be included to install at least three padlocks on each circuit breaker to prevent movement of the drawout mechanism.
 - xvi. Operating Handle shall be an integral part of the breaker. No external tools shall be required to rack the breaker.
 - xvii. Control Switch: One for each electrically operated circuit breaker.
 - xviii. Key Interlocks: Main and tie-breakers.
 - xix. Undervoltage Trip: Adjustable time-delay.
 - xx. Shunt-Trip – field installable.
 - xxi. Modular communication and relaying accessories are to be available for retrofitting by the clients chosen engineer. It shall not be necessary for the manufacturer's personnel to retrofit accessories.
 - xxii. Accessories shall be front mounted. Modular communications and relaying accessories are to be available for retrofitting by the clients chosen engineer. It shall not be necessary for the manufacturer's personnel to retrofit accessories.
 - xxiii. Portable lifting yoke for drawout circuit breakers.
 - xxiv. Field interchangeable accessories shall include CT's, trip units, racking mechanism and all internal & external accessories.
- b. Feeder circuit breakers shall be molded case, quick-make, quick-break, trip-free, thermal magnetic, solid state type. The continuous current rating shall be adjustable from 20 to 100% without the need for a rating plug. Solid state breaker trip functions shall include adjustments for continuous amperage, long time pickup and delay, instantaneous short time pickup and delay and ground fault pickup and delay, if required. Breaker ratings shall be as shown on the drawings.
2. Main circuit breakers within switchboards down stream of the incoming service shall be molded case quick-make, quick-break, trip-free, thermal magnetic, solid state type. The continuous current rating shall be adjustable from 20 to 100% without the need for a rating plug. Solid state breaker trip functions shall include adjustments for continuous amperage, long time pickup and delay, instantaneous short time pickup and delay, ground fault pickup and delay and zone selective interlocking for short time and ground fault. Breaker ratings shall be as shown on the drawings.
- a. Distribution section branch protective devices shall be molded case circuit breakers.
- 1) Molded Case Circuit Breakers (MCCB's) shall be of quick-make, quick-break, trip-free, thermal magnetic, solid-state – 150 amp frame, 30 amp trip and above type with frame, trip and voltage ratings, as indicated on the drawings. The switchboard shall have space or fully equipped provisions for future units as shown on the drawings.
- D. Distribution Sections
1. Individual sections shall be front accessible, not less than 20" deep and the rear of all sections shall align. Incoming line termination, main device connection and all bolts used to join current-carrying parts shall be installed so as to permit servicing from the front only so that no rear access is required. The branch devices shall be front removable and panel mounted with line and load side connections front accessible. The interior shall be capable of accepting panel mounted molded case circuit breakers.
- E. Ground Fault Protection
1. Furnish and install, in the service equipment switchboard, ground fault protection and indication equipment as shown on drawings in accordance with NEC 230-95. All parts of the systems specified shall be UL Listed. All ground fault protection and indication equipment shall be factory installed, wired and tested by the switchboard manufacturer.

F. Metering Equipment

1. Advanced electric meters shall be provided as an integral part of the switchboards for each incoming service (total of 4). Advanced electric meters shall be programmable and capable of measuring kWh and other power characteristics (kw, amperage, power factor, etc.) on 5 – 60 minute intervals with built-in data storage. A fifteen (15) minute interval measurement shall be programmed at installation.

G. Finish

1. The complete switchboard shall be phosphatized and finished with ANSI 61 light gray polyester powder paint.

H. Markings

1. Each switchboard section shall have a label permanently affixed to it, listing the following information: Name of manufacturer, system voltage, ampacity, type, manufacturer's shop order number and date.
2. Each section of switchboard shall bear a UL listing mark, where qualified and a short circuit rating label.
3. Front, side, rear and top of each switchboard section will have a DANGER label in accordance with NEMA Standard PB-2.

I. Transient-Voltage Suppression

1. Provide Transient-Voltage Suppression per specification Section 264128.

J. ARC FLASH

1. Apply in the field, the factory supplied arc flash warning labels to all switchboards to warn qualified persons of potential electrical arc flash hazards.

2.3 INFRARED VIEWING PANES (IR WINDOWS)

NOT USED

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Examine substrates and conditions in which units will be installed. Check for clearance that will be required before, during and after equipment installation. Do not proceed with installation until unsatisfactory conditions are corrected.
- B. Strictly comply with manufacturer's instructions and recommendations and NEMA PB 2.1. Coordinate installation with adjacent work to ensure proper sequence of construction, clearances and support.
- C. Install units plumb, level and rigid without distortion to the switchboard cubicle(s).

3.2 ADJUSTMENTS AND CLEANING

- A. Clean exposed surfaces using manufacturer recommended materials and methods.
- B. Touch-up damaged coatings and finishes using non-abrasive materials and methods recommended by manufacturer. Eliminate all visible evidence of repair.

3.3 TESTING

- A. Perform factory and installation tests in accordance with applicable NEC, NEMA and UL requirements.

3.4 WARRANTY

- A. Equipment manufacturer warrants that all goods supplied are free of non-conformities in workmanship and materials for 12 months from date of initial operation.

END OF SECTION

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SECTION 262726

WIRING DEVICES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Wall switches.
 - 2. Receptacles.
 - 3. Device plates and box covers.
- B. Related Documents: The Contract Documents, as defined in Section 011000 - Summary of Work, apply to the Work of this Section. Additional requirements and information necessary to complete the Work of this Section may be found in other documents.
- C. Related Sections:
 - 1. Section 260500 - Common Work Results for Electrical: Supporting devices, electrical identification, grounding and bonding.

1.2 REFERENCES

- A. National Electrical Contractors Association (NECA):
 - 1. NECA "Standard of Installation."
- B. National Electrical Manufacturers Association (NEMA):
 - 1. NEMA WD 1 – General Requirements for Wiring Devices.
 - 2. NEMA WD 6 – Wiring Devices – Dimensional Requirements.
- C. National Fire Protection Association (NFPA):
 - 1. NFPA 70 - National Electrical Code.

1.3 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Manufacturer: Company specializing in manufacturing the Products specified in this section with minimum 5 years documented experience.
- B. Regulatory Requirements:
 - 1. Conform to requirements of NFPA 70.
 - 2. Provide Products listed and classified by Underwriters Laboratories, Incorporated.

1.4 SUBMITTALS

- A. Product data required.

PART 2 - PRODUCTS

2.1 WALL SWITCHES

- A. Manufacturers: Subject to compliance with project requirements, manufacturers offering specified items which may be incorporated in the Work include the following:
 - 1. Hubbell, Inc, Milford, CT (203) 882-4800.
 - 2. Leviton Manufacturing, Company, Inc., Little Neck, NY (800) 824-3005.
 - 3. Pass & Seymour, Syracuse, NY (800) 776-4035.
- B. Section 016000 - Product Requirements: Product options and substitutions. Substitutions: Permitted.
- C. Provide 20Amp, 120/277Volt, specification grade, flush single pole toggle switches with side and back wired screw terminals.
- D. Single Pole Switch:
 - 1. Leviton Cat. No.1221-2.
 - 2. P&S Cat. No. PS20AC1l.
 - 3. Hubbell Cat. No. HBL1221.
- E. Double Pole Switch:
 - 1. Leviton Cat. No. 1222-2.
 - 2. P&S Cat. No. PS20AC2.
 - 3. Hubbell, Cat. No. HBL1222.
- F. Three-way Switch:
 - 1. Leviton, Cat. No. 1223-2.
 - 2. P&S Cat. No. PS20AC-3.
 - 3. Hubbell Cat. No. HBL1223.
- G. Indicator Switch:
 - 1. Leviton Cat. No. 1221-PLR (Red).
 - 2. P&S Cat. No. PS20AC1-RPL (Red).
 - 3. Hubbell Cat. No. HBL1221PL (Red).
- H. Locator Switch:
 - 1. Leviton Cat. No. 1221-LHC (Clear).
 - 2. P&S Cat. No. PS20AC1-CSL (Clear).
 - 3. Hubbell Cat. No. HBL1221IL (Clear).
- I. Locking Switch:
 - 1. Leviton Cat. No. 1221-2L.
 - 2. P&S Cat. No. PS20AC1-L.
 - 3. Hubbell Cat. No. HBL1221L.

2.2 RECEPTACLES

- A. Manufacturers: Subject to compliance with project requirements, manufacturers offering specified items which may be incorporated in the Work include the following:
 - 1. Leviton Manufacturing, Company, Inc., Little Neck, NY (800) 824-3005.
 - 2. Pass & Seymour, Syracuse, NY (800) 776-4035.
 - 3. Hubbell, Inc, Milford, CT (203) 882-4800.

- 4. Section 016000 - Product Requirements: Product options and substitutions. Substitutions: Permitted.
- B. Provide duplex specification grade receptacles, 20Amp, 125Volt, 2 pole, 3 wire, grounding with green hexagonal equipment ground screw.
- C. Duplex Convenience Receptacle:
 - 1. Leviton Cat. No. 5362.
 - 2. P&S Cat. No. 5362.
 - 3. Hubbell Cat. No. HBL5352.
- D. Tamper and Weather Resistant GFCI Receptacle (Side Wired Feed-Thru):
 - 1. Hubbell Cat. No. GFR5362SG.

2.3 WALL PLATES

- A. Manufacturers: Subject to compliance with project requirements, manufacturers offering specified items which may be incorporated in the Work include the following:
 - 1. P&S Sierra.
 - 2. Hubbell.
 - 3. Leviton.
 - 4. Section 016000 - Product Requirements: Product options and substitutions. Substitutions: Permitted.
- B. Coverplate: Shall be white smooth thermoplastic.
 - 1. Sierra TP8-W.
- C. Weatherproof Coverplate: Gasketed cast metal with hinged gasketed device.
 - 1. Sierra 4510 cast aluminum.
- D. Integral locking and pad-lockable coverplates:
 - 1. Duplex receptacles shall be equipped with Decora style, stainless steel, single gang, locking coverplates: Pass & Seymour/Legrand #WR26L.
 - 2. Quadraplex receptacles shall be equipped die-cast metal, low profile, two gang, flip type, pad-lockable coverplates: Hubbell/TayMac #MX2050S.
 - a. Provide two (2) keyed, padlocks for each quadraplex coverplate: Master Lock #4120KA.
 - b. All quadraplex receptacles to be keyed alike.

2.4 MULTI-OUTLET SURFACE RACEWAY

NOT USED

2.5 TELE/POWER POLE

NOT USED

2.6 DIGITAL INTERVAL COUNTDOWN TIMER SWITCH

NOT USED

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Section 017300 - Execution: Verification of existing conditions before starting work.
- B. Verification of Conditions: Verify that field measurements, surfaces, substrates and conditions are as required, and ready to receive Work.
 - 1. Verify that outlet boxes are installed at proper height.
 - 2. Verify that wall openings are neatly cut and will be completely covered by wall plates.
 - 3. Verify that branch circuit wiring installation is completed, tested, and ready for connection to wiring devices.

3.2 PREPARATION

- A. Provide extension rings to bring outlet boxes flush with finished surface.
- B. Clean debris from outlet boxes.

3.3 INSTALLATION

- A. Install wiring devices as indicated, in accordance with manufacturer's written instruction, applicable requirements of NEC and NECA's "Standard of Installation", and in accordance with recognized industry practices to fulfill project requirements.
- B. Install devices plumb and level.
- C. Install switches with OFF position down.
- D. Install receptacles with grounding pole on bottom.
- E. Connect wiring device grounding terminal to branch circuit equipment grounding conductor.
- F. Connect wiring devices by wrapping conductor 2/3 of screw diameter in clockwise direction around screw terminal. Tighten screw to 12 pound-inches. Do not use spring pressure devices for wire connections.
- G. Install galvanized steel plates on outlet boxes and junction boxes in unfinished areas, above accessible ceilings, and on surface mounted outlets.
- H. Provide coverplates on switch, receptacle, and blank outlets.

3.4 LABELING

- A. All coverplates for receptacles and switches shall be labeled with the branch circuit number. Label shall be machine generated and permanently affixed to the outside of the coverplate.

3.5 CONSTRUCTION

- A. Interface with other work:
 - 1. Coordinate locations of outlet boxes provided under Section 260533 to obtain mounting heights indicated on Drawings.

3.6 FIELD QUALITY CONTROL

- A. Section 014000 - Quality Requirements: Field inspection.
- B. Prior to energizing circuitry, test wiring for electrical continuity, and for short circuits. Ensure proper polarity of connections is maintained. Subsequent to energization, test wiring devices to demonstrate compliance with requirements.
- C. Inspect each wiring device for defects.
- D. Operate each wall switch with circuit energized and verify proper operation.
- E. Verify that each receptacle device is energized.
- F. Test each receptacle device for proper polarity.
- G. Test each GFCI receptacle device for proper operation.

3.7 ADJUSTING

- A. Adjust devices and wall plates to be flush, level and plumb with wall.

3.8 CLEANING

- A. Section 017300 - Execution: Cleaning installed work.
- B. Clean exposed surfaces to remove splatters and restore finish.

END OF SECTION

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SECTION 264128

SURGE PROTECTIVE DEVICES (SPDS)

PART 1 - GENERAL

1.1 SUMMARY

- A. This section describes the materials and installation requirements for surge protective devices (SPD) for the protection of all power and communications circuits. Provide and install materials, labor and auxiliaries required to furnish and install complete surge suppression for the protection of building electrical and electronics systems from the effects of induced transient voltage surge and lightning discharge as indicated on drawings.
 - 1. Provide surge suppression devices for the following equipment:
 - a. Each main electrical service switchboard as indicated for on drawings.
- B. Related documents: The contract documents, as defined in Section 011000-Summary of Work, apply to work of this section. Additional requirements and information necessary to complete the work of this section may be found in other documents.
- C. Related sections:
 - 1. Section 260500 – Common Work Results for Electrical.
 - 2. Section 262413 – Switchboards.

1.2 REFERENCES

- A. IEEE C62.41.1, IEEE Guide on the Surge Environment in Low-Voltage (1000 V and Less) AC Power Circuits,
- B. IEEE C62.41.2, IEEE Recommended Practice on Characterization of Surges in Low-Voltage (1000 V and Less) AC Power Circuits,
- C. IEEE C62.45, IEEE Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage (1000 V and Less) AC Power Circuits.
- D. National Electrical Code: Article 285.
- E. UL 1283 - Electromagnetic Interference Filters.
- F. UL 1449, 4th Edition, effective December 30, 2014 – Surge Protective Devices.

1.3 SUBMITTALS

- A. Section 013300 - Submittal Procedures: Procedures for submittals.
 - 1. Shop Drawings: Indicate outline and support point dimensions, voltage, main bus ampacity, integrated short circuit ampere rating, circuit breaker and fusible switch arrangement and sizes.
 - 2. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by Product testing agency. Include instructions for storage, handling, protection, examination, preparation, installation, and starting of Product.
 - 3. Certification submitted SPDs are manufactured in the United States.
 - 4. Shall include UL 1449 Listing documentation verifying the following:

- a. Short Circuit Current Rating (SCCR)
 - b. Voltage Protection Ratings (VPRs) for all modes
 - c. Maximum Continuous Operating Voltage rating (MCOV)
 - d. I-nominal rating (I-n)
 - e. Type 1 Device Listing
 - 1) VPR, MCOV, I-n, and Type 1 information is posted at www.UL.com, under Certifications, searching using UL Category Code: VZCA. SCCR's are posted in manufacturer's UL docs.
 - 2) UL data and visual inspection takes precedence over manufacturer's published documentation.
- B. Section 017704 - Closeout Procedures and Training: Procedures for closeout submittals:
- 1. Project Record Documents: Record actual locations of Products; indicate actual branch circuit arrangement.
 - 2. Operation and Maintenance Data: Include spare parts data listing; source and current prices of replacement parts and supplies; and recommended maintenance procedures and intervals.
 - 3. Submit data showing compliance with UL 1449 4th edition.

1.4 QUALITY ASSURANCE

- A. SPDs must be manufactured in the United States.
- B. Manufacturer Qualifications: Engage a firm with at least ten (10) years experience in manufacturing transient voltage surge suppressors.
- C. Manufacturer shall be ISO 9001 or 9002 certified.
- D. The manufacturer of this equipment shall have produced similar electrical equipment for a minimum period of five (5) years. When requested by the Engineer, an acceptable list of installations with similar equipment shall be provided demonstrating compliance with this requirement.
- E. The SPD shall be compliant with the Restriction of Hazardous Substances (RoHS) Directive 2002/95/EC.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Handle and store equipment in accordance with manufacturer's Installation and Maintenance Manuals. One (1) copy of this document to be provided with the equipment at time of shipment.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Subject to compliance with project requirements, manufacturers offering specified items which may be incorporated in the Work include the following.
 - 1. ASCO/Advanced Protection Technologies, Incorporated, Clearwater, FL (800) 237-4567
 - 2. Emerson/Liebert Corporation, Columbus, OH, (800) 877-9222
 - 3. Atlantic Scientific Corporation, Melbourne, FL, (800) 544-4737
 - 4. Current Technology Inc., Irving, TX, (800) 238-5000
 - 5. Ditek Surge Protection, Largo, FL, (800) 753-2345

- B. Section 016000 - Product Requirements: Product options and substitutions. Substitutions: Permitted.

2.2 SERVICE ENTRANCE SURGE PROTECTIVE DEVICES (SPDS)

- A. Models:
1. Basis of Design: Advanced Protection Technologies: "TEXAS" Series.
- B. Surge Protective Device Description: Replaceable module type complying with UL 1283 and UL 1449 4th Edition Listed. Provide unit with the following features and accessories:
1. LED indicator lights for power and protection status.
 2. Audible alarm, with silencing switch, to indicate when protection has failed.
 3. One set of dry contacts rated at 5.0 amperes, 240 volts ac, for remote monitoring of protection status.
- C. Short Circuit Current Rating: SPD shall be UL labeled with 200kA Short Circuit Current Rating (SCCR). Fuse ratings shall not be considered in lieu of demonstrated withstand testing of SPD, per NEC 285.6.
- D. SPD Type: SPD shall be UL labeled as Type 1 (verifiable at UL.com), intended for use without need for external or supplemental overcurrent controls. Every suppression component of every mode, including N-G, shall be protected by internal overcurrent and thermal overtemperature controls. SPDs relying upon external or supplementary installed safety disconnectors do not meet the intent of this specification.
- E. In Rating: SPD shall be UL labeled with 20kA Inominal (I-n) (verifiable at UL.com) for compliance to UL 96A Lightning Protection Master Label and NFPA 780.
- F. SPD shall provide surge current diversion paths for all modes of protection; L-N, L-G, N-G, and L-L in WYE systems, and L-L, L-G in DELTA Systems.
- G. Minimum Single Impulse Surge Current Capability (single pulse rated) per phase shall be.
1. Single Impulse Surge Current Capacity is to be 300 kA.
- H. Connection Means: Permanently wired via internal disconnect. The device shall have a NEMA designed and certified safety interlocked integral disconnect switch. The switch shall be located within the unit with an externally mounted metal manual operator.
- I. Protection modes and UL 1449 4th Edition Voltage Protection Rating for grounded WYE circuits with voltages of 480Y/277, 3-phase, 4-wire shall be as follows:

<u>VOLTAGE</u>	<u>L-N</u>	<u>L-G</u>	<u>N-G</u>
480Y/277V	1500V	1500V	1500V

- J. Install devices at switchboards at load side, with ground lead bonded to service entrance ground.
- K. Test unit in accordance with manufacturer's written instructions.

2.3 DISTRIBUTION SURGE PROTECTIVE DEVICES (SPDS)

NOT USED

2.4 FIRE ALARM AND SECURITY SYSTEM SURGE PROTECTIVE DEVICES (SPDS)
NOT USED

PART 3 - EXECUTION

3.1 EXAMINATION

- A. As specified in Section 260500 - Common Work Results for Electrical.

3.2 INSTALLATION

- A. The installation shall meet the following criteria:
 - 1. SPDs shall be factory installed.

3.3 ADJUSTMENTS AND CLEANING

- A. Remove debris from SPD and wipe dust and dirt from all components.
- B. Repaint marred and scratched surfaces with touch up paint to match original finish.

3.4 TESTING

- A. Check tightness of all accessible mechanical and electrical connections to assure they are torqued to the minimum acceptable manufacture's recommendations.
- B. Check all installed panels for proper grounding, fastening and alignment.

END OF SECTION

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SECTION 265100

INTERIOR LIGHTING (LED-SOLID STATE)

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Interior luminaires and accessories.
 - 2. Emergency lighting units.
 - 3. Exit signs.
 - 4. Ballast/Light emitting diode (LED) drivers.
 - 5. Light Sources.
 - 6. Luminaire accessories.
- B. Substitutions:
 - 1. Section 016000 - Product Requirements: Product substitutions permitted by manufacturers listed in paragraph 2.1A.
- C. Related Documents: The Contract Documents, as defined in Section 011000 - Summary of Work, apply to the Work of this Section. Additional requirements and information necessary to complete the Work of this Section may be found in other Documents.
- D. Related Sections:
 - 1. Section 260500 - Common Work Results for Electrical: Basic electrical methods.

1.2 REFERENCES

- A. As specified in Section 260500 – Common Work Results for Electrical.
- B. Illuminating Engineering Society (IES):
 - 1. IES LM-79 - (2008) Electrical and Photometric Measurements of Solid-State Lighting Products.
 - 2. IES LM-80 - (2015) Measuring Lumen Maintenance of LED Light Sources.
 - 3. IES TM-21 - (2011; Addendum B 2015) Projecting Long Term Lumen Maintenance of LED Light Sources.
- C. National Fire Protection Association (NFPA):
 - 1. NFPA 70 - National Electrical Code.
 - 2. NFPA 101 - Life Safety Code.
- D. National Electrical Manufacturers Association (NEMA):
 - 1. NEMA ANSI/ILG C78.377 – (2017) Electric Lamps— Specifications for the Chromaticity of Solid State Lighting Products.
 - 2. NEMA SSL 1 – (2010) Electronic Drivers for Led Devices, Arrays, or Systems.
 - 3. NEMA SSL 3 - (2011) High-Power White LED Binning for General Illumination.
- E. Federal Communications Commission Parts 18.305, 18.307 (EMI RFI).
- F. American Society of Heating, Refrigerating and Air Conditioning, Inc.
 - 1. ANSI/ ASHRAE/ IES Standard 90.1.

- G. Underwriters Laboratories (UL)
 - 1. UL 1472 – (2015) UL Standard for Safety Solid-State Dimming Controls.
 - 2. UL 1598 – (2008; Reprint Oct 2012) Luminaires.
 - 3. UL 844 – (2012; Reprint Mar 2016) UL Standard for Safety Luminaires for Use in Hazardous (Classified) Locations.
 - 4. UL 8750 – (2015; Reprint Feb 2018) UL Standard for Safety Light Emitting Diode (LED) Equipment for Use in Lighting Products.
 - 5. UL 924 – (2016; Reprint Nov 2017) UL Standard for Safety Emergency Lighting and Power Equipment.

1.3 SUBMITTALS

- A. As specified in Section 260500 - Common Work Results for Electrical.
 - 1. Product Data: Submit catalog cuts, drawings, descriptive matter and lighting performance characteristics as required to completely define the materials and construction details employed, finishes applied, dimensions, hinging, latching and relamping provisions, and electrical characteristics.
 - 2. Assurance/Control Submittals:
 - a. Manufacturer's Instructions: Indicate application conditions and limitations of use stipulated by Product testing agency. Include instructions for storage, handling, protection, examination, preparation, and installation of Product.
- B. Section 017704 - Closeout Procedures and Training: Procedures for closeout submittals:
 - 1. Operation and Maintenance Data: Submit manufacturer's operation and maintenance instructions for each type of luminaire.

1.4 DEFINITIONS

- A. For LED luminaire light sources, "Useful Life" is the operating hours before reaching 70 percent of the initial rated lumen output (L70) with no catastrophic failures under normal operating conditions. This is also known as 70 percent "Rated Lumen Maintenance Life" as defined in IES LM-80.
- B. For LED luminaires, "Luminaire Efficacy" (LE) is the appropriate measure of energy efficiency, measured in lumens/watt. This is gathered from LM-79 data for the luminaire, in which absolute photometry is used to measure the lumen output of the luminaire as one entity, not the source separately and then the source and housing together.
- C. Total harmonic distortion (THD) is the root mean square (RMS) of all the harmonic components divided by the total fundamental current.

1.5 QUALITY ASSURANCE

- A. As specified in section 260500 – Common Work Results for Electrical.
- B. Products shall be tested, approved and labeled/listed by Underwriters Laboratories, Inc., or by a nationally recognized testing laboratory (NRTL).
- C. Electrical equipment and materials shall be new and within one year of manufacture, complying with the latest codes and standards. Re-built, refurbished and/or re-manufactured electrical equipment and materials shall not be furnished on this project.

1.6 MAINTENANCE

- A. Section 017704 - Closeout Procedures and Training: Procedures for closeout submittals.
- B. Extra Products: At completion of installation, deliver to the USPS Project Manager.
 - 1. Two of each luminaire lens type.
 - 2. Each component type: Provide quantity for each unique ballast/driver, and lamp equal to 2 percent of luminaire total, but not less than two of each type.

PART 2 - PRODUCTS

2.1 LUMINAIRE MANUFACTURERS

- A. Subject to compliance with project requirements, manufacturers offering Products which may be incorporated in the Work include the following:
 - 1. Alphabet Lighting, Tustin, CA (714) 259-9959.
 - 2. Beghelli, Miramar, FL (954) 442-6600.
 - 3. Chloride Systems, Burgaw, NC (910) 259-1000.
 - 4. Columbia Lighting, Greenville, SC (864) 678-1000.
 - 5. Cooper Lighting (Halo, Invue, Lumark, McGraw-Edison, Metalux, Portfolio, Sure-Lites), Peachtree City, GA (770)486-4800.
 - 6. Compass Lighting Products, Greenville, SC (866) 313-3909.
 - 7. Day-Brite, Tupelo, MS (662) 842-7212.
 - 8. Dual-Lite, Cheshire, CT (203) 699-2000.
 - 9. Edison-Price Lighting, Long Island City, NY (718) 685-0700.
 - 10. Elcast Lighting, Addison, IL (630) 543-5390.
 - 11. Evenlight, Trevoze, PA (800) 872-0879.
 - 12. Gardco Lighting, San Leandro, CA (800) 227-0758.
 - 13. GE Lighting Systems, Charlotte, NC (803) 462-2016.
 - 14. Gotham Lighting, Conyers, GA (800) 315-4982.
 - 15. Guth Lighting, St. Louis, MO (314) 533-3200.
 - 16. H.E.Williams, Carthage, MO (417) 358-4065.
 - 17. Holophane, Newark, OH (740) 345-9631.
 - 18. Hubbell Lighting, Inc., (Columbia, Spaulding, Sterner) Spartanburg, SC (864) 599-6000.
 - 19. Indy Lighting, Fishers, IN (317) 849-1233.
 - 20. Intense Lighting LLC, Anaheim, CA (800) 691-5321.
 - 21. Kenall Manufacturing, Gurnee, IL (847) 360-8200.
 - 22. Killark Electric, Fenton, MO (314) 531-0460.
 - 23. Kirlin Lighting, Detroit, MI (313) 259-6400.
 - 24. Kramer Lighting, Sturtevant, WI (800) 236-6800.
 - 25. Kurt Versen Company, Westwood, NJ (201) 664-8200.
 - 26. Kurtzon Lighting, Chicago, IL (773) 277-2121.
 - 27. LaMar Lighting, Farming Dale, NY (631) 777-7700.
 - 28. LightAlarms (Thomas & Betts) Montreal, ON (888) 552-6467.
 - 29. Lithonia Lighting, Conyers, GA (770) 922-9000.
 - 30. LSI Industries, Cincinnati, OH (513) 793-3200.
 - 31. Lumax Industries, Altoona, PA (814) 944-2537.
 - 32. Omega Lighting, Tupelo, MS (800) 234-1890.
 - 33. Orion Energy Systems, Inc., Manitowoc, WI (800) 660-9340.
 - 34. Pheonix Products, Milwaukee, WI (414) 438-1200.
 - 35. Prescolite Lighting, Spartanburg, SC (864) 599-6000.
 - 36. Prudential Lighting, Los Angeles, CA (213) 746-0360.
 - 37. Vista Lighting, Tupelo, MS (662) 690-4105.
 - 38. Zumtobel Staff, Highland, NY (800) 448-4131.

Switchgear Replacement
Hartford, CT - P&DC
B43529/18034.00

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USPS MPFS

Date: 10/1/2020

INTERIOR LIGHTING
(LED-SOLID STATE)

2.2 LUMINAIRE TYPES

- A. **Type CL1** Lithonia #ZLIN-L48-XXXX-FST-40K.
1. Description; 4 ft. long, LED strip luminaire with protective lens/diffuser.
 2. Lens: Snap on frosted, diffused lens.
 3. Housing:
 - a. 20 gauge cold rolled steel housing with punched knockouts for mounting.
 - b. End plates shall be die-formed heavy gauge rolled steel with punched knockouts for through wiring.
 - c. White baked enamel finish with a minimum 90 percent reflectance.
 4. Ballast/Driver: LED high efficiency – 25W at 3300 Lumen, 34W at 4600 Lumen or 52W at 7000 Lumen. Wattage based on lumen package selected.
 5. Mounting:
 - a. Surface mounted to the underside of the ceiling. Attach luminaire to ceiling grid by means of a gripper hanger which attaches to any standard ceiling grid system.
 - b. For spaces without ceiling, suspend from structure with all-thread rods to required height.
 - c. Electrical Contractor to determine quantity of hangers required for either method.
 6. Lamps: 3300 Lumen, 4600 Lumen or 7000 Lumen LED arrays; 4000K rated 60,000 hours at LLD = 0.7.
 7. Marking: Luminaires are to be labeled on the interior side with lumen package used.
 8. Alternate Manufacturers:
 - a. Lumax Industries #CNLED-XXL-4K-48-9-FAF.
 - b. Metalux #4SNLED-LD5-XXX-LW-UNV-L840-CD1-U.
 - c. Orion (Harris) #SFHC1 Series with lens.
 - d. Substitutions permitted: As listed in paragraph 2.1A.
- B. **Type CL3** Lithonia #TZLIN-L96-XXXX-FST-40K.
1. Description; 8 ft. long, LED strip luminaire with protective lens/diffuser.
 2. Lens: Snap on frosted, diffused lens.
 3. Housing:
 - a. 20 gauge cold rolled steel housing with punched knockouts for mounting.
 - b. End plates shall be die-formed heavy gauge rolled steel with punched knockouts for through wiring.
 - c. White baked enamel finish with a minimum 90 percent reflectance.
 4. Ballast/Driver: LED high efficiency – 48W at 7000 Lumen, 68W at 9300 Lumen or 104W at 13,400 Lumen. Wattage based on lumen packages selected.
 5. Mounting:
 - a. Surface mounted to the underside of the ceiling. Attach luminaire to ceiling grid by means of a gripper hanger which attaches to any standard ceiling grid system.
 - b. For spaces without ceiling, suspend from structure with all-thread rods to required height.
 - c. Electrical Contractor to determine quantity of hangers required for either method.
 6. Lamps: 7000 Lumen, 9300 Lumen or 13,400 Lumen LED arrays, 4000K rated 60,000 hours at LLD=0.7.
 7. Marking: Luminaires are to be labeled on the interior side with lumen package used.
 8. Alternate Manufacturers:
 - a. Metalux #8TSNLED-LD5-XXX-LW-UNV-L840-CD1-U.
 - b. Lumax #CNLED-XXXL-4K-96-9-FAF.
 - c. Orion (Harris) #SFHC1 Series with lens.
 - d. Substitutions permitted: As listed in paragraph 2.1A.
- C. **Type EM3** Exitronix #RS6NM-30-REN1-2-W-G2.
1. Description: Industrial design LED emergency lighting unit with adjustable heads and nickel metal hydride battery. Provide with line latching, solid-state voltage limiting charger, solid-state switching, low voltage disconnect, brownout circuit, overload, short-circuit protection test switch and self test/self diagnostics.
 2. Battery: Sealed, maintenance free, nickel metal hydride, 6 volt, with 30 Watt capacity.

3. Housing: 20-gauge steel housing finished in white epoxy, powder coat finish, with hinged faceplate for ease of maintenance. UL924 listed, all components meet the UL 94-0.5VA flame retardant standard.
 4. Mounting: Wall mounted.
 5. Voltage: Verify available voltage in the field prior to ordering.
 6. Lamps: 2 at 3.6 Watt, PAR 18 LED (included).
 7. Alternate Manufacturers:
 - a. Beghelli #EST6V-42.
 - b. Dual-Lite #LM33-N-I-03L.
 - c. Lightalarms #PN1/DR130-LD10.
 - d. Chloride #6N25-J212 Series.
 - e. Substitutions permitted: As listed in paragraph 2.1A.
- D. **Type EM4** (exterior egress doors) Lithonia #AFF-OEL-DWHGXD-UVOLT-LTP-SDRT-FACT.
1. Description: Wall Mounted UL wet location LED emergency lighting unit
 2. Ballast/Driver: LED high efficiency – 2.5W at 635 Lumen LED (forward throw).
 3. Housing: UL listed wet location (NEMA 4X) low profile, die-cast aluminum, sealed and gasketed. Finish by the USPS Project Manager.
 4. Battery: Lithium iron phosphate with self-diagnostics. 32 to 122 degrees F (standard), -22 to 122 degrees F (cold weather) , wet locations.
 5. Mounting: Surface wall.
 6. Voltage: Verify available voltage in the field prior to ordering.
 7. Lamps: 2.5W at 635 Lumen LED array.
 8. Alternate Manufacturers:
 - a. Isolite #ELED-EM-XX-CD-1.
 - b. Compass #CUWZ-HTR-PC.
 - c. Compass #CUSO Series.
 - d. Sure-Lites #SELD-W Series.
 - e. Substitutions permitted: As listed in paragraph 2.1A.
- E. **Type X1** Lithonia #LQM-S-W-3R-120/277-ELN-SD.
1. Description: Ceiling, end or wall mounted, single face LED exit sign with canopy. Self powered and with self diagnostics.
 2. Features: Red Letters, White Stencil, White Housing (verify colors with local jurisdiction). Injection molded UL94-5V rated polycarbonate frame and canopy.
 3. Mounting: Ceiling, back or end mounted.
 4. Battery: Maintenance free sealed Nickel Cadmium with long life, full recharge time of 24 hours max.
 5. Voltage: Verify available voltage in the field prior to ordering.
 6. Lamps: LED lamp module.
 7. Alternate Manufacturers:
 - a. Sure-Lites #LPX7-X-SD.
 - b. Compass #CERSD Series.
 - c. Substitutions permitted: As listed in paragraph 2.1A.

2.3 LUMINAIRES

- A. Provide luminaires as indicated in luminaire schedule and details on project plans. Provide luminaires complete with light sources of quantity, type and wattage indicated. Provide all luminaires of the same type by the same manufacturer. Luminaires must be specifically designed for use with the driver or ballast and light source provided.
- B. LED Luminaires:
 1. Install ballast/drivers, LED arrays and specified accessories at the factory.
 2. Luminaires must have a minimum 5 year manufacturer's warranty.

3. Luminaires must have a minimum L70 lumen maintenance value of 50,000 hours as calculated by IES TM-21, with data obtained per IES LM-80 requirements.
4. Luminaire drive current value must be identical to that provided by test data for luminaire in question.
5. Luminaires must be listed with the DesignLights Consortium 'Qualified Products List' when falling into category of "General Application" luminaires, i.e. Interior Directional, Display Case, Troffer, Linear Ambient, or Low/High Bay. Requirements are shown in the Designlights Consortium "Technical Requirements Table" at <https://data.energystar.gov/dataset/EPA-Recognized-Laboratories-For-Lighting-Products/jgwf-7qrr>.
6. Provide Department of Energy 'Lighting Facts' label for each luminaire.

2.4 LED DRIVERS

- A. NEMA SSL 1, UL 8750. LED drivers must be electronic, UL Class 1, constant-current type and comply with the following requirements:
 1. Output power (watts) and luminous flux (lumens) as shown in luminaire schedule for each luminaire type to meet minimum luminaire efficacy (LE) value provided.
 2. Power Factor (PF) greater than or equal to 0.9 over the full dimming range when provided.
 3. Current draw Total Harmonic Distortion (THD) of less than 20 percent.
 4. Class A sound rating.
 5. Operable at input voltage of 120-277 volts at 60 hertz.
 6. Minimum 5 year manufacturer's warranty.
 7. RoHS compliant.
 8. Integral thermal protection that reduces or eliminates the output power if case temperature exceeds a value detrimental to the driver.
 9. UL listed for dry or damp locations typical of interior installations.
 10. LED driver shall tolerate sustained open circuit and short circuit output conditions without damage.
 11. LED driver shall comply with the requirements of the FCC rules and regulations, Title 47 CFR Part 15 Non-Consumer (Class A).

2.5 LIGHT SOURCES

- A. NEMA ANSLG C78.377, NEMA SSL 3. Provide type and wattage as indicated in luminaire schedule on project plans.
- B. LED arrays shall have a correlated color temperature (CCT) of 4000K; minimum color rendering index (CRI) value of 80.
- C. High power, white light output utilizing phosphor conversion (PC) process or mixed system of colored LEDs, typically red, green and blue (RGB).
- D. Provide light source color consistency by utilizing a binning tolerance within a 4 step McAdam ellipse.
- E. Luminaire shall have door frame and lens compatible for use with LED arrays and integral airflow ventilation system.

2.6 LED EMERGENCY DRIVERS

- A. Provide LED emergency driver with automatic power failure detection, test switch and LED indicator (or combination switch/indicator) located on luminaire exterior and provide self-diagnostic function integral to emergency driver. Integral nickel cadmium or lithium iron phosphate battery is required to supply a minimum of 90 minutes of emergency power at 700 Lumens (at 100 Lumens/Watt). Driver must be RoHS compliant, rated for installation in plenum-rated spaces and damp locations, and be warranted for a minimum of five years.

2.7 LUMINAIRE SUPPORT HARDWARE

- A. Wire:
 - 1. ASTM A641/A641M; Galvanized, soft tempered steel, minimum 0.11 inches in diameter, or galvanized, braided steel, minimum 0.08 inches in diameter.
- F. Threaded Rods:
 - 1. Threaded steel rods, 3/16 inch diameter, zinc or cadmium coated.
- G. Straps:
 - 1. Galvanized steel, one inch by 3/16 inch, conforming to ASTM A653/A653M, with a light commercial zinc coating or ASTM A1008/A1008M with an electrodeposited zinc coating conforming to ASTM B633, Type RS.

2.8 EQUIPMENT IDENTIFICATION

- A. Each item of equipment must have a nameplate bearing the manufacturer's name, address, model number, and serial number securely affixed in a conspicuous place; the nameplate of the distributing agent will not be acceptable.
- B. Provide labeled luminaires in accordance with UL 1598 requirements. All luminaires must be clearly marked for operation of specific light sources and ballasts or drivers. Note the following light source characteristics in the format "Use Only _____":
 - 1. Correlated color temperature (CCT) and color rendering index (CRI) for all luminaires.
 - 2. All markings related to light source type must be clear and located to be readily visible to service personnel, but unseen from normal viewing angles when light sources are in place. Ballasts or drivers must have clear markings indicating multi-level outputs and indicate proper terminals for the various outputs.

2.9 FACTORY APPLIED FINISH

- A. Provide all luminaires and lighting equipment with factory-applied painting system that as a minimum, meets requirements of NEMA 250 corrosion-resistance test.

2.10 RECESS- AND FLUSH-MOUNTED LUMINAIRES

- A. Provide access to lamp and ballast from bottom of luminaire. Provide trim for the exposed surface of flush-mounted luminaires as indicated on project drawings and specifications.

2.11 SUSPENDED LUMINAIRES

- A. Provide hangers capable of supporting twice the combined weight of luminaires supported by hangers. Provide with swivel hangers to ensure a plumb installation. Provide cadmium-plated steel with a swivel-ball tapped for the conduit size indicated. Hangers must allow fixtures to swing within an angle of 45 degrees. Brace pendants 4 feet or longer to limit swinging. Single-unit suspended luminaires must have twin-stem hangers. Multiple-unit or continuous row luminaires must have a tubing or stem for wiring at one point and a tubing or rod suspension provided for each unit length of chassis, including one at each end. Provide rods in minimum 0.25 inch diameter.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. As specified in Section 260500 – Common Work Results for Electrical.

3.2 INSTALLATION

- A. Electrical installations must conform to IEEE C2, NFPA 70, and to the requirements specified herein. Install luminaires to meet the requirements of ASHRAE 90.1 and ASHRAE 189.1. To encourage consistency and uniformity, install luminaires of the same manufacture and model number when residing in the same facility or building.
- B. Luminaires:
 - 1. Set luminaires plumb, square, and level with ceiling and walls, in alignment with adjacent luminaires and secure in accordance with manufacturers' directions and approved drawings. Installation must meet requirements of NFPA 70. Obtain approval of the exact mounting height on the job before commencing installation and, where applicable, after coordinating with the type, style, and pattern of the ceiling being installed.
- C. Suspended Luminaires:
 - 1. Provide suspended luminaires with swivel hangers so that they hang plumb and level. The stem, canopy and luminaire must be capable of 45 degree swing. Pendants, rods, or chains, 4 feet or longer excluding luminaire, must be braced to prevent swaying using three cables at 120 degree separation.
 - 2. Suspended luminaires in continuous rows must have internal wireway systems for end to end wiring and must be properly aligned to provide a straight and continuous row without bends, gaps, light leaks or filler pieces.
 - 3. Match supporting pendants with supported luminaire. Aircraft cable must be stainless steel. Canopies must be finished to match the ceiling and must be low profile unless otherwise shown.
 - 4. Maximum distance between suspension points must be 10 feet or as recommended by the manufacturer, whichever is less.
- D. Install surface mounted luminaires and exit luminaire signs plumb and adjust to align with building lines and with each other. Secure to prevent movement. Mount exit signs to outlet box mounted flush in wall or ceilings. Outlet box for ceiling mounted exit signs: Connect to rigid conduit system.
- E. Install wall mounted luminaires, emergency lighting units and exit luminaire signs at height as scheduled.
- F. Install accessories furnished with each luminaire.
- G. Bond products and metal accessories to branch circuit equipment grounding conductor.

- H. Install specified light sources in each emergency lighting unit, exit luminaire sign, and luminaire.
- I. Wire exit signs and emergency lighting units ahead of the local switch, to the normal lighting circuit located in the same room or area.
- J. Luminaire whips shall be steel or aluminum. M/C cable shall be permissible for luminaire whips/connections. Luminaire whips/connections shall be made with a minimum of #12 AWG copper conductors. Equipment grounding conductors shall be provided in all luminaire whips and/or connections.
 - 1. All luminaire whips shall be supported to luminaire support wire/cable with an approved fastener equal to an Erico "KX" flexible conduit hanger or other UL listed supports and fasteners.
- K. Luminaires are not to be used as a raceway unless stamped for use as raceway by manufacturer. Single luminaire in lay-in ceilings shall not be used for raceway and shall be connected to an outlet box located within six feet (6') of fixture with flexible conduit or luminaire whips.

3.3 FIELD QUALITY CONTROL

- A. Section 014000 - Quality Requirements: Field testing and inspection.
- B. Operate each luminaire after installation and connection. Inspect for proper connection and operation.
- C. Final acceptance will be based on measurement of initial lighting levels after required hours of burn in as specified in USPS Mail Processing Facility Design Criteria, not maintained lighting levels.

3.4 WARRANTY

- A. Provide a written 5 year on-site replacement warranty for material, luminaire finish, and workmanship. On-site replacement includes transportation, removal, and installation of new products.
 - 1. Include finish warranty to include failure and substantial deterioration such as blistering, cracking, peeling, chalking, or fading.
 - 2. Material warranty must include:
 - a. All drivers.
 - b. Replacement when more than 10 percent of LED sources in any lightbar or subassembly(s) are defective or non-starting.
- B. Warranty period must begin on date of beneficial occupancy. Provide the USPS Project Manager with signed warranty certificates prior to final payment.

3.5 ADJUSTING

- A. Aim and adjust luminaires as directed by the USPS Project Manager.
- B. Position exit luminaire sign directional arrows as indicated.

3.6 CLEANING

- A. Section 017300 - Execution: Cleaning installed work.
- B. Clean electrical parts to remove conductive and deleterious materials.
- C. Remove dirt and debris from enclosures.

- D. Clean photometric control surfaces as recommended by manufacturer.
- E. Clean finishes and touch up damage.

END OF SECTION

USPS Mail Processing Facility Specification issued: 10/1/2020
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SECTION 283100

FIRE EMERGENCY VOICE/ALARM COMMUNICATION SYSTEM (EVACS)

PART 1 - GENERAL

1.1 SUMMARY

- A. This scope of work includes, but is not limited to, new fire alarm detection, initiation, and alarm devices for the new electrical house on the roof. The existing fire alarm system is a Notifier #NFS2-3030.
- B. This specification provides the minimum requirements for the Fire Emergency Voice/Alarm Communication System. The system shall include, but not limited to all equipment, materials, labor, documentation and services necessary to furnish and install a complete, operational system to include but not limited to the following functions:
 - 1. Protected premises fire alarm systems.
 - 2. Initiating devices.
 - 3. Notification appliances.
 - 4. Inspection and testing.
 - 5. Auxiliary fire alarm equipment.
- C. Related Sections:
 - 1. Section 260500 - Common Work Results for Electrical.
 - 2. Section 260519 - Low-Voltage Electrical Power Conductors and Cables.
 - 3. Section 260533 – Raceway & Boxes for Electrical Systems.

1.2 REFERENCES

- A. All work and materials shall conform to all applicable federal, state and local codes and regulations governing the installation. If there is a conflict between the referenced standards, federal, state or local codes, and this specification, it is the bidder's responsibility to immediately bring the conflict to the attention of the engineer for resolution. National standards shall prevail unless local codes are more stringent. The equipment and installation shall comply with the current provisions of the following codes and standards.
- B. American National Standards Institute (ANSI):
 - 1. ANSI S3.411, Audible Emergency Evacuation Signals.
 - 2. ANSI/UL 1971, Standard for Safety Signaling devices for Hearing Impaired.
- C. National Fire Protection Association (NFPA):
 - 1. NFPA 13, Installation of Sprinkler Systems.
 - 2. NFPA 70, National Electrical Code.
 - 3. NFPA 72, National Fire Alarm Code.
 - 4. NFPA 101, Life Safety Code.
- D. Underwriters Laboratories, Inc. (UL):
 - 1. UL 864 - Control Units for Fire Protective Signaling Systems.
 - 2. UL 268 - Smoke Detectors for Fire Protective Signaling Systems.
 - 3. UL 521 - Heat Detectors for Fire Protective Signaling Systems.
 - 4. UL 228 - Door Closers-Holders, With or Without Integral Smoke Detectors.

5. UL 464 - Audible Signaling Appliances.
6. UL 38 - Manually Actuated Signaling Boxes for Use with Fire-Protective Signaling Systems.
7. UL 1711 - Amplifiers for Fire Protective Signaling Systems.
8. UL 1638 - Visual Signaling Appliances.
9. UL 1481 - Power Supplies for Fire Protective Signaling Systems.

NOTE: Control equipment shall be listed to comply with both UL864 and UL2572 standards.

- E. Federal Codes and Regulations
 1. Americans with Disabilities Act (ADA)
- F. International Standards Organization (ISO)
 1. ISO-9000
 2. ISO-9001
- G. Factory Mutual (FM)
 1. Provide factory mutual approval.
- H. International Code Council
 1. International Building Code
 2. International Fire Code
 3. International Mechanical Code

1.3 DEFINITIONS:

- A. Authority Having Jurisdiction (AHJ): See Public Authorities.
- B. Engineer of Record: A Professional Engineer Registered in the State where the project is located who undertakes design of the fire protection system.
- C. Owner: Building/facility owner, landlord/lessor, tenant/lessee, Insurance Carrier or any designated representative of these entities.
- D. Public Authorities: Local, State or Federal government body having jurisdiction over any portion of the project. This includes, but is not limited to: Fire Departments, Fire Marshal Offices, Aviation Authorities, Insurance Regulatory Boards, etc.
- E. Approved: Unless otherwise stated, materials, equipment or submittals approved by the Authority or AHJ.
- F. Circuit: Wire path from a group of devices or appliances to a control panel or transponder.
- G. Central Station: A remote supervising station (facility) that is listed for central station remote monitoring in accordance with NFPA 72. The central station serves as the constantly attended location that receives alarm, supervisory or trouble signals from the protected premises fire alarm system.
- H. CPU: The central computer of a multiplex fire alarm or voice command control system.
- I. EVACS: Dedicated in building "Emergency Voice/Alarm Communication System" utilized for originating and distributing voice instructions and evacuation signals pertaining to a fire emergency to the occupants of a building.
- J. FAAP: Fire Alarm Annunciator Panel.
- K. FACP: Fire Alarm Control Panel.

- L. FM: FM Global (Factory Mutual).
- M. MPSA: Medium Power Speaker Array.
- N. IDC: Initiating Device Circuit.
- O. LCD: Liquid Crystal Display.
- P. NAC: Notification Appliance Circuit.
- Q. NICET: National Institute for Certification in Engineering Technologies.
- R. NRTL: Nationally Recognized Testing Laboratory.
- S. SLC: Signaling Line Circuit.
- T. Style 1: As defined by NFPA 72, Class B.
- U. Style 4: As defined by NFPA 72, Class B.
- V. Style 6: As defined by NFPA 72, Class A.
- W. Style 7: As defined by NFPA 72, Class A.
- X. Style B: As defined in NFPA 72, Class B.
- Y. Style D: As defined in NFPA 72, Class A.
- Z. Style Y: As defined in NFPA 72, Class B.
- AA. UL Listed: Materials or equipment listed and included in the most recent edition of the UL Fire Protection Equipment Directory.
- BB. Zone: Combination of one or more circuits or devices in a defined building area.

1.4 SYSTEM DESCRIPTION

- A. Summary:
 1. Provide all permits, labor, equipment, materials and services to furnish and install fully tested functional, UL Listed, code compliant, intelligent addressable networked, fire alarm devices at the electrical house on the roof, including but not limited to all initiation and notification appliances, all raceways and wiring, and connection to the existing FACP and central station monitoring company.
 2. All equipment shall be new and the current products of a single manufacturer, actively engaged in the manufacturing and sale of digital fire detection devices for over ten years and compatible with the existing system.
 3. Also included are system wiring, fiber optic cable, raceways, pull boxes, terminal cabinets, mounting boxes, and any accessories and miscellaneous items required for a code compliant system.
 4. The system drawings show the intended coverage and suggested device locations. Final device quantity, location, and AHJ approval are the responsibility of the contractor.
 5. The final system shall be complete, tested, and ready for operation as described elsewhere in this specification, before owner acceptance.
 6. Strict conformance to this specification is required to ensure that the installed and programmed system will function as designed, is compatible with other systems, and will accommodate the

future requirements and operations of the building owner. All specified operational features must be met without exception.

7. The System shall comply in all respects with the requirements of the specifications, manufacturer's recommendations and Underwriters Laboratories Inc. (ULI) listings.
8. Certification that the entire system(s) has/have been inspected and tested, is/are installed entirely in accordance with the applicable codes, standards, manufacturer's recommendations and ULI listings, and is/are in proper working order. Contractor shall use "Fire Alarm System Certification and Description" as required by NFPA 72.

B. General:

1. Furnish and install a complete UL list/certified, modular, non-coded, independently point addressable, intelligent Fire Alarm System as described herein and as shown on the plans.
2. System shall be dedicated to fire service.

C. System Components:

1. Provide new devices and wiring to expand an existing new fire detection and alarm system that shall consist of:
 - a. Manual pull stations.
 - b. Area smoke detectors.
 - c. Area heat detectors.
 - d. Audible notification appliances.
 - e. Synchronized visual notification appliances.
 - f. Communications.
 - g. Addressable interface devices.

1.5 SEQUENCE OF OPERATIONS

A. General

1. The alarm activation of any area smoke detector, heat detector, manual pull station, the following functions shall automatically occur:
 - a. The internal audible device shall sound at the control panel and remote annunciator.
 - b. The LCD display shall indicate all applicable information associated with the alarm condition including device type, device location and time/date.
 - c. All system activity/events shall be documented in system history and on the system printer.
 - d. Any remote or local annunciator LCD/LED's associated with the alarm shall be illuminated.
 - e. Activate notification audible appliances throughout the building.
 - f. Activate visual strobes notification appliances throughout the building. The visual strobe shall continue to flash until the system has been reset. The visual strobe shall not stop operating when the "Alarm Silence" is pressed.
 - g. Transmit "Contact ID – Point Address" alarm signals to the central station remote monitoring company.
 - h. All automatic events programmed to the alarm point shall be executed and the associated outputs activated.
 - i. All exit doors shall unlock throughout the building.
 - j. All self-closing fire/smoke doors held open shall be released.
 - k. Recall elevators to primary or alternate recall floors.
 - l. Upon activation of an initiating device the Automated Guided Vehicle (AGV) system shall shutdown.

B. Trouble Operation

1. Upon activation of a trouble condition or signal from any device on the system, the following functions shall automatically occur:
 - a. The internal audible device shall sound at the control panel and remote annunciator.

- b. The LCD display shall indicate all applicable information associated with the trouble condition including; device type, device location and time/date.
- c. All system activity/events shall be documented on the system printer and system history file.
- d. Any remote or local annunciator LCD/LED's associated with the trouble zone shall be illuminated.
- e. Transmit a "Contact ID – Point Address" trouble signal to the central station remote monitoring company.

1.6 SYSTEM CONFIGURATION

A. General

- 1. All Life Safety System equipment shall be arranged and programmed to provide a system for the early detection of fire, the notification of building occupants, the automatic summoning of the local fire department (when required), the override of the HVAC system operation, and the activation of other auxiliary systems to inhibit the spread of smoke and fire, and to facilitate the safe evacuation of building occupants.
- 2. The System shall utilize independently addressed, smoke detectors, heat detectors and input/output modules as described elsewhere in this specification.

B. Power Supply

- 1. The power supply shall be a high efficiency switch mode type with line monitoring to automatically switch to batteries for power failure or brown out conditions. The automatic battery charger shall have low battery discharge protection. The power supply shall provide internal power and 24 Vdc at 4.5A continuous for notification appliance circuits. All outputs shall be power limited. The battery shall be sized to support the system for 60 hours of supervisory and trouble signal current plus general alarm for 5 minutes.
- 2. Auxiliary power supplies shall be a high efficiency switch mode type with line monitoring to automatically switch to batteries for power failure or brown out conditions. The automatic battery charger shall have low battery discharge protection. The power supply shall provide internal power and 24 VDC at 6.4 continuous for notification appliance circuits. The power supply shall be capable of providing 8A to output circuits for a maximum period of 100 ms. All outputs shall be power limited. The battery shall be sized to support the system for 60 hours of supervisory and trouble signal current plus general alarm for 5 minutes. All supervision of the auxiliary supply shall be transmitted via addressable analog loop without additional equipment.

C. Initiating Device Circuits

- 1. The Initiating device circuits (IDC) used to monitor manual fire alarm stations, smoke and heat detectors, waterflow switches, valve supervisory switches, fire pump functions, and air pressure supervisory switches shall be Class B.

D. 24 VDC Notification Appliance Circuits

- 1. 24 VDC Notification appliance circuits (NAC) shall be Class B. All notification appliance circuits shall have a minimum circuit output rating of 2 amp @ 24 VDC. The notification circuits shall be power limited. Non-power limited circuits are not acceptable.

E. Audio Notification Appliance Circuits

- 1. One-way audio notification appliance circuits (NAC) shall be Class B. All notification appliance circuits shall have a minimum circuit output rating of 35W @ 70Vrms. The notification circuits shall be power limited. Non-power limited circuits are not acceptable.

F. Signaling Line Circuits (SLC-Data Circuits)

- 1. The signaling line circuit shall communicate from a panel/node to analog/addressable detectors, input modules, output modules, isolation modules and notification appliance circuits.

2. Each signaling circuit connected to addressable/analog devices shall provide a minimum of 20 spare addresses.
3. The signaling line circuit (SLC) connecting all components Class B (style 4).

1.7 SUBMITTALS

A. Section 013300 - Submittal Procedures: Procedures for submittals.

1. Product Data: For each type of Product required.
2. It shall be the contractor's responsibility to inspect the job site and become familiar with the conditions under which the work will be performed. These conditions should be used to adjust the submittals.
3. Shop Drawings: Include plans, elevations, sections, details, and attachments necessary:
 - a. Comply with recommendations in the "Documentation" Section of the "Fundamentals of Fire Alarm Systems" Chapter in NFPA 72.
 - b. Include voltage drop calculations for notification appliance circuits.
 - c. Include 25 percent spare capacity on each signal circuit so that additional devices can be added.
 - d. Include substantiating emergency (battery) and normal power supply calculations for supervisory and alarm power requirements and calculations of notification device circuit loading (end of circuit voltage drop) to ensure proper operation of all devices.
 - e. Include performance parameters and installation details for each detector, verifying that each detector is listed for complete range of air velocity, temperature, and humidity possible when air-handling system is operating.
 - f. Include floor plans to indicate final outlet locations showing address of each addressable device. Show size and route of cable and conduits. Drawing scale shall match engineers design drawings.
 - g. Include voice/alarm signaling-service equipment rack or console layout, grounding schematic, amplifier power calculation, and single-line connection diagram.
 - h. Include complete schematic circuit diagrams for system, including all equipment. Wiring diagram shall show point to point connections between all system components.
 - i. Include descriptions of system operation, annunciator schedule showing titles for each zone, and manufacturer's literature marked to show model and catalog number for all equipment.
 - j. Include complete riser diagrams for system indicating wiring sequence of all alarm devices and control equipment shall be included with submittal data.

B. General Submittal Requirements:

1. Submit for approval four (4) sets of shop drawings and submittal documentation to the consulting engineer for review and comment. Drawing and submittal documentation sets shall be bound. Additional copies may be required at no additional cost to the project.
2. Contained in the title block of each drawing shall be symbol legends with device counts, wire tag legends, circuit schedules for all addressable and notification appliance circuits, the project name/address, and a drawing description which corresponds to that indicated in the drawing index on the coversheet drawing. A section of each drawing title block shall be reserved for revision numbers and notes.
3. Shop Drawings shall be prepared by persons with the following qualifications:
 - a. Trained and certified by manufacturer in fire-alarm system design.
 - b. NICET-certified fire-alarm technician, Level III minimum.

C. Systems Contractor Qualifications:

1. The contractor directly responsible for this work shall be a systems contractor, who is and who has been regularly engaged in the furnishing and installation of commercial and industrial fire alarm systems of this type and size for at least the immediate past 5 years. All equipment shall be installed by a technician with experience installing the manufactured system or a recognized

- training school or course for the installations of this type system. The contractor shall, if requested by the engineer; show proof of a specific individual's training. The system's contractor shall directly employ a suitable number of skilled systems installers whose normal work is systems installation and who shall install and make the wire and cable connections thereto.
2. As part of the project submittal, it shall be demonstrated to the satisfaction of the engineer that the systems contractor has adequate plant and equipment to do the work properly and expeditiously, adequate staff and technical experience.
- D. Test Reports: Submit the following reports directly to USPS Project Manager from Manufacturer's Quality Control Inspector, with copy to Contractor. Prepare reports in conformance with Section 014000 - Quality Requirements:
1. Pre-test.
 2. Acceptance test.
- E. Certificates: Manufacturer's certificate certifying that components and Products meet or exceed specified requirements.
- F. Qualification Documentation:
1. Submit documentation of manufacturer and installer experience indicating compliance with specified qualification requirements. Include lists of completed projects with project names and addresses, and names of Engineers and Owners.
 2. Fire alarm contractor license issued by State or local authority having jurisdiction.
- G. Manufacturer's Field Reports: Submit the following reports directly to USPS Project Manager from Manufacturer's Quality Control Inspector, with copy to Contractor. Prepare reports in conformance with Section 014000 - Quality Requirements.
1. Preparatory inspection.
 2. Initial inspection.
 3. Follow-up inspection.
 4. Final inspection.
- H. A copy of the installing technician's NICET certification shall be provided.
- I. Section 017704 - Closeout Procedures and Training: Procedures for closeout submittals:
1. Operation and Maintenance Data: Project specific operating manuals covering the installed Life Safety System. A generic or typical owner's instruction and operation manual shall not be acceptable to fulfill this requirement. Include user's software data and recommendations for spare parts to be stocked at the site. Provide names, addresses, and telephone numbers of service organizations that stock repair parts for the system.
 2. Operations and maintenance data for fire-alarm system and components shall include the following:
 - a. Comply with the "Records" Section of the "Inspection, Testing and Maintenance" Chapter in NFPA 72.
 - b. Provide "Record of Completion Documents" according to NFPA 72 article "Permanent Records" in the "Records" Section of the "Inspection, Testing and Maintenance" Chapter.
 - c. Record copy of site-specific software.
 - d. Provide "Maintenance, Inspection and Testing Records" according to NFPA 72 article of the same name and include the following:
 - 1) Frequency of testing of installed components.
 - 2) Frequency of inspection of installed components.
 - 3) Requirements and recommendations related to results of maintenance.
 - 4) Manufacturer's user training manuals.
 - e. Manufacturer's required maintenance related to system warranty requirements.
 - f. Abbreviated operating instructions for mounting at fire-alarm control unit.
 - g. Copy of NFPA 25.

3. Project Record Documents: As-Built drawings consisting of a scaled plan of each building showing the placement of each individual item of the Life Safety System equipment as well as raceway size and routing, junction boxes, and conductor size, quantity, and color in each raceway. All drawings must reflect point to point wiring, device address and programmed characteristics. All drawings shall be provided in AutoCAD format. A hard copy plot of each sheet shall also be provided. Provide the application program listing for the system (to the facility) as installed at the time of acceptance (disk, hard copy printout, and all required passwords).
 - a. The Contractor shall provide three bound copies of the following, to be forwarded to the Owner at completion of project:
 - 1) As-built wiring and conduit layout diagrams showing all fire alarm devices on floor plans, including wire color code and terminal numbers, and showing all interconnections in the system.
 - 2) Technical literature on all major parts of the system, including smoke detectors, batteries, manual stations, alarm notification appliances, and power supplies.
 4. Record of Completion: Figure 4.5.2.1 NFPA 72.
- J. Maintenance Material Submittals:
1. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - a. Smoke Detectors, Fire Detectors: One of each type installed.
 - b. Detector Bases: One of each type installed.
 - c. Audible and Visual Notification Appliances: One of each type installed.
 - d. Manual Pull Stations: One of each type installed.

1.8 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Firm experienced in manufacturing equipment of the types and capacities indicated that have record of successful in-service performance with minimum 10 years documented experience. Prime system manufacturer and manufacturers of major system components required to qualify separately.
1. Service Center: The System Supplier shall maintain a service organization with adequate spare parts stock within 75 miles of the installation. Any defects that render the system inoperative shall be repaired within 24 hours of the owner notifying the contractor.
 2. System equipment shall be from a single manufacturer and shall be supported by a manufacturer authorized, established service organization that shall stock parts for the equipment supplied.
 3. Equipment shall be manufactured by a firm that has been actively manufacturing fire alarm systems for a minimum of 7 years and that offers a 3 year warranty on all control equipment.
 4. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
 5. NFPA Certification: Obtain certification according to NFPA 72 by a UL-listed alarm company.
- B. Installer Qualifications: Experience with systems of the type and scope indicated and certified as authorized service representative of the prime system manufacturer with minimum 5 years documented experience.
1. System shall be installed by a single contractor that assumes responsibility for system components and their compatibility.
 2. Only manufacturer's certified installers with NICET Level III or higher shall be utilized.
 3. The addressable fire alarm system shall be connected, programmed, and tested only by the manufacturer or by an authorized distributor who stocks a full complement of spare parts for the system. Technicians performing this service shall be trained and individually certified by the manufacturer for the model of system being installed and NICET Level II or greater. Copies of their certifications must be included with the contractor's submittal to the engineer, prior to installation. The submittal cannot be approved without this information.

- C. Regulatory Requirements:
1. Calculations, Product Data, Shop Drawings: Provide stamp of approval from Public Authorities.
 2. Comply with requirements of Public Authorities for submittals, approvals, materials, installation, inspections, and testing.
 3. Comply with requirements of USPS Project Manager and Owner's insurance underwriter for submittals, approvals, materials, installation, inspections, and testing.
 4. Provide certificate of compliance from Public Authorities indicating approval of field acceptance tests.
 5. Conform to applicable code for submission of design and calculations, reviewed shop and erection drawings and as required for acquiring permits.
 6. Cooperate with regulatory agency or authority and provide data as requested.
- D. Pre-Installation Meetings:
1. Convene a pre-installation meeting one week prior to commencing Work of this Section. Final device and equipment locations shall be coordinated with the Plant and Engineer during this meeting.
 2. Require attendance of parties directly affecting Work of this Section.
 3. Review conditions of operations, procedures and coordination with related Work.
 4. Agenda:
 - a. Tour, inspect, and discuss conditions of building and building structure.
 - b. Review system design and requirements.
 - c. Review required submittals, both completed and yet to be completed.
 - d. Review system Drawings and data.
 - e. Review and finalize construction schedule related to system and verify availability of materials, personnel, equipment, and facilities needed to make progress and avoid delays.
 - f. Review required inspections, testing, certifying, and material usage accounting procedures.

1.9 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. The Contractor shall be responsible for all receiving, handling, and storage of his materials at the job site.
- B. Overnight storage of materials is limited to the assigned storage area. Materials brought to the work area shall be installed the same day or returned to the assigned storage area unless previously approved by the Owner. Store equipment in a clean, dry space and protect from dirt, fumes, water, construction debris, and physical damage.
- C. The Contractor shall remove rubbish and debris resulting from his work on a daily basis. Rubbish not removed by the Contractor will be removed by the Owner and back charged to the Contractor.
- D. Handle equipment to prevent internal components damage, breakage, denting, and scoring enclosure and finish.
- E. Do not install damaged equipment.
- F. Do not install or connect any smoke detectors (spot or duct) before areas where detectors are installed are cleaned and ready for occupants as indicated in NFPA-72. If detectors are installed before areas are cleaned, and found to be contaminated at time of final commission or soon after. The installing contractor shall replace detectors with new at no cost to the owner.
- G. After installation, protect from damage by work of other trades.

1.10 SOFTWARE SERVICE AGREEMENT

- A. Comply with UL 864.
- B. Technical Support: Beginning with acceptance, provide software support for three years.
- C. Upgrade Service:
 - 1. Update software to latest version at Project completion. Install and program software upgrades that become available within three years from date of acceptance. Upgrading software shall include operating system of the FACP's.
 - 2. Provide 30 days' notice to Owner to allow scheduling and access to system and to allow Owner to upgrade computer equipment if necessary.

1.11 COORDINATION

- A. Coordinate locations of panels, annunciators and equipment with existing field conditions and Plant Staff.
- B. Coordinate conduit and cable runs with other contractors. Include fire proofing and fire stopping at penetrations.
- C. Coordinate locations of devices with reflected ceiling plans and wall elevations.

1.12 POSITIVE ALARM SEQUENCE

NOT USED

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. All equipment and components shall be the manufacturer's current model. The materials, appliances, equipment and devices shall be tested and listed by a nationally recognized approval agency for use as part of a protected premises protective signaling (fire alarm) system. The authorized representative of the manufacturer of the major equipment, such as control panels, shall be responsible for the satisfactory installation of the complete system.
- B. Subject to compliance with project requirements, manufacturers offering Products which may be incorporated in the Work include the following:
 - 1. Edwards, (800) 655-4497.
 - 2. Siemens, (800) 262-7976.
 - 3. Honeywell/Notifier, (800) 289-3473.
 - 4. Simplex/Grinnell, (978) 731-2500.
- C. Section 016000 - Product Requirements: Product options and substitutions. Substitutions: Permitted subject to approval of USPS Project Manager.
 - 1. Conflicts, deviations, or change requests shall be submitted in writing to USPS Project Manager with supporting documentation. Include written justification, designs, manufacturer's specifications, cost benefits, and any special circumstances dictated by local conditions. Documentation package shall be submitted in sufficient time to minimize any adverse effects of

the proposed changes to the project construction schedule. USPS Project Manager reserves the right to reject substitute and other systems.

2.2 PANEL COMPONENTS AND FUNCTIONS

NOT USED

2.3 GRAPHIC FIRE COMMAND SERVERS AND WORKSTATIONS

NOT USED

2.4 FIELD-MOUNTED SYSTEM COMPONENTS

A. Smoke Detectors and Accessories

1. Analog Addressable Smoke General

- a. Each analog addressable smoke detector's sensitivity shall be capable of being programmed individually as: most sensitive, more sensitive, normal, less sensitive or least sensitive.
- b. An alternate alarm sensitivity level shall be provided for each detector, which can be set to any of the five (5) sensitivity settings manually or automatically using a time of day event.
- c. The detector's sensing element reference point shall automatically adjust, compensating for background environmental conditions such as dust, temperature, and pressure. Periodically, the sensing element real-time analog value shall be compared against its reference value. The detector shall provide a maintenance alert signal that 80 percent to 99 percent compensation has been used. The detector shall provide a dirty fault signal that 100 percent compensation has been used.
- d. The system shall allow for changing of detector types for service replacement purposes without the need to reprogram the system. The replacement detector type shall automatically continue to operate with the same programmed sensitivity levels and functions as the detector it replaced. System shall display an off-normal condition until the proper detector type has been installed or change in the application program profile has been made.

2. Smoke Detector - Multi-Sensor Photo Thermal (Ceiling Mounted)

- a. Provide analog/addressable multi-sensor combination photoelectric, thermal smoke detectors for all ceiling mounted locations. Alarm condition shall be based upon the combined input from the photoelectric and thermal detection elements. Separately mounted photoelectric detectors and heat detectors in the same location, clustered at the manufacturer's listed spacing is not an acceptable alternative. The system shall have the ability to set the sensitivity and alarm verification of each individual detector on the circuit. It shall be possible to automatically set the sensitivity of individual analog/addressable detectors for the day and night periods.
- b. Each smoke detector shall be capable of transmitting alarm signals as well as normal, trouble and need cleaning information. It shall be possible to program control panel activity to each level. Each smoke detector may be individually programmed to operate at any one of five (5) sensitivity settings. Each detector microprocessor shall contain an environmental compensation algorithm that identifies and sets ambient environmental thresholds approximately six times an hour. The microprocessor shall monitor the environmental compensation value and alert the system operator when the detector approaches 80% and 100% of the allowable environmental compensation value.
- c. Basis of Design: Edwards model SIGA-PHD.

- B. Heat Detectors
 - 1. Fixed Temperature Heat Detector (Equipment Rooms)
 - a. Provide analog/addressable fixed temperature heat detectors within all equipment rooms. The heat detector shall have a nominal fixed temperature alarm point rating of 135 degrees F (57 degrees C). The heat detector shall be rated for ceiling installation at a minimum of 70 ft (21.3m) centers and be suitable for wall mount applications.
 - b. Basis of Design: Edwards model SIGA-HFD.
- C. Detector Bases
 - 1. Detector Base - Standard
 - a. Provide detector mounting base suitable for mounting on single gang, 3½ or 4 inch octagon box or 4 inch square box. The base shall, contain no electronics and support all series detector types.
 - b. Basis of Design: Edwards model SIGA-SB4.
 - 2. Detector Base - Relay
 - a. Provide relay detector mounting base suitable for mounting on single gang, 3½ or 4 inch octagon box and 4 inch square box. The relay base shall support all detector types and have the following minimal requirements.
 - b. The relay shall be a bi-stable type and selectable for normally open or normally closed operation.
 - 1) The position of the contact shall be supervised.
 - 2) The relay shall automatically de-energize when a detector is removed.
 - 3) The operation of the relay base shall be controlled by its respective detector processor. Detectors operating standalone mode shall operate the relay upon changing to alarm state. Relay bases not controlled by the detector microprocessor shall not be acceptable.
 - 4) Form "C" Relay contacts shall have a minimum rating of 1 amp @ 30 VDC and be listed for pilot duty.
 - 5) Removal of the respective detector shall not affect communications with other detectors.
 - c. Basis of Design: Edwards model SIGA-RB.
- D. Manual Stations
 - 1. Manual Station - Double Action Single Stage
 - a. Provide analog/addressable double action, single stage fire alarm stations at the locations shown on the drawings. The fire alarm station shall be of polycarbonate construction and incorporate an internal toggle switch. A locked test feature shall be provided. The station shall be finished in red with silver "PULL IN CASE OF FIRE" lettering. The manual station shall be suitable for mounting on 2 ½ (64mm) deep single gang boxes and 1 ½ (38mm) deep 4 square boxes with single gang covers.
 - b. Provide factory manufactured boxes for all surface mounted applications.
 - c. Basis of Design: Edwards model SIGA-278.
- E. Notification Appliances
 - 1. General
 - a. All appliances which are supplied for the requirements of this specification shall be UL Listed for Fire Protective Service, and shall be capable of providing the "equivalent facilitation" which is allowed under the Americans with Disabilities Act Accessibilities Guidelines (ADA(AG)), and shall be UL 1971 Listed.
 - b. All appliances shall be of the same manufacturer as the fire alarm control panel specified to insure absolute compatibility between the appliances and the control panels, and to insure that the application of the appliances are done in accordance with the single manufacturer's instructions.
 - c. All notification appliances shall be red unless noted otherwise on the drawings.

2. Low Profile Speaker-Strobe
 - a. Provide low profile wall mount speaker/strobes at the locations shown on the drawings. The low profile speaker/strobe shall not extend more than 1 inch (2.5cm) past the finished wall surface, and provide a switch selectable audible output of 2W (90dBA), 1W (87dBA), 1/2W (84dBA), or 1/4W (81dBA) at 10 ft. when measured in reverberation room per UL-464.
 - b. Strobes shall provide synchronized flash output that shall be switch selectable for output values of 15cd, 30cd, 75cd & 110cd. Wattage and candela settings shall be visible with the cover installed. When the cover is installed, no mounting hardware shall be visible. In and out screw terminals shall be provided for all wiring. The low profile speaker/strobes shall mount in a 4 inch x 2 1/8 inch square electrical box, without trims or extension rings.
 - c. Provide factory manufactured boxes for all surface mounted applications.
 - d. Basis of Design: Edwards Genesis G4 series.

2.5 INITIATION AND CONTROL MODULES

A. General

1. It shall be possible to address each intelligent module without the use of DIP or rotary switches. Devices using DIP switches for addressing shall not be acceptable. The personality of multifunction modules shall be programmable at site to suit conditions and may be changed at any time using a personality code downloaded from the Analog Loop Controller. Modules requiring EPROM, PROM, ROM changes or DIP switch and/or jumper changes shall not be acceptable. The modules shall have a minimum of 2 diagnostic LEDs mounted behind a finished coverplate. A green LED shall flash to confirm communication with the loop controller. A red LED shall flash to display alarm status. The module shall be capable of storing up to 24 diagnostic codes which can be retrieved for troubleshooting assistance. Input and output circuit wiring shall be supervised for open and ground faults. The module shall be suitable for operation in the following environment:
 - a. Temperature: 32 degrees F to 120 degrees F (0 degrees C to 49 degrees C)
 - b. Humidity: 0-93% RH, non-condensing

B. Control Relay Module

1. Provide intelligent control relay modules at the locations shown on the drawings. The Control Relay Module shall provide one form "C" dry relay contact rated at 2 amps @ 24 VDC to control external appliances or equipment shutdown. The control relay shall be rated for pilot duty and releasing systems. The position of the relay contact shall be confirmed by the system firmware. The control relay module shall be suitable for mounting on 2 1/2" (64mm) deep single gang boxes or 1 1/2" (38mm) deep 4" square boxes with single gang covers.
2. Basis of Design: Edwards model SIGA-CR.

C. Dual Input Module

1. Provide intelligent dual input modules at the locations shown on the drawings. The Dual Input Module shall provide two (2) supervised Class B input circuits each capable of a minimum of 4 personalities, each with a distinct operation. The module shall be suitable for mounting on 2 1/2 inch (64mm) deep single gang boxes or 1 1/2 inch (38mm) deep 4 inch square boxes with single gang covers. The dual input module shall support the following circuit types:
 - a. Normally-Open Alarm Latching (Manual Stations, Heat Detectors, etc.)
 - b. Normally-Open Alarm Delayed Latching (Waterflow Switches)
 - c. Normally-Open Active Non-Latching (Monitor, Fans, Dampers, Doors, etc.)
 - d. Normally-Open Active Latching (Supervisory, Tamper Switches)
2. Basis of Design: Edwards model SIGA-CT2.

- D. Dual Input Signal Module
1. Provide intelligent dual input signal modules at the locations shown on the drawings. The Dual Input (Dual Riser Select) Signal Module shall provide a means to selectively connect one of two (2) signaling circuit power risers to one (1) supervised output circuit. The module shall be suitable for mounting on 2 ½ inch (64mm) deep 2-gang boxes or 1 ½ inch (38mm) deep 4 inch square boxes with 2-gang covers. The dual input signal module shall support the following operation:
 2. Audible/Visible Signal Power Selector (Polarized 24 VDC @ 2A, 25 Vrms @ 50w or 70 Vrms @ 35w of Audio).
 3. Basis of Design: Edwards model SIGA-CC2.
- E. Isolator Module
1. Provide intelligent fault isolators modules at the locations shown on the drawings. The Isolator Module shall be capable of isolating and removing a fault from a class A data circuit while allowing the remaining data loop to continue operating. The module shall be suitable for mounting on 2 ½ inch (64mm) deep 2-gang boxes or 1 ½ inch (38mm) deep 4" square boxes with 2-gang covers.
 2. Basis of Design: Edwards model SIGA-IM.
- F. Single Input Module
1. Provide intelligent single input modules at the locations shown on the drawings. The Single Input Module shall provide one (1) supervised Class B input circuit capable of a minimum of 4 personalities, each with a distinct operation. The module shall be suitable for mounting on 2 ½ inch (64mm) deep 1-gang boxes or 1 ½ inch (38mm) deep 4 inch square boxes with 1-gang covers. The single input module shall support the following circuit types:
 - a. Normally-Open Alarm Latching (Manual Stations, Heat Detectors, etc.)
 - b. Normally-Open Alarm Delayed Latching (Waterflow Switches)
 - c. Normally-Open Active Non-Latching (Monitor, Fans, Dampers, Doors, etc.)
 - d. Normally-Open Active Latching (Supervisory, Tamper Switches)
 2. Basis of Design: Edwards model SIGA-CT1.
- G. Single Input Signal Module
1. Provide intelligent single input signal modules at the locations shown on the drawings. The Single Input (Single Riser Select) Signal Module shall provide one (1) supervised Class B output circuit capable of a minimum of 2 personalities, each with a distinct operation. When selected as a telephone power selector, the module shall be capable of generating its own "ring tone". The module shall be suitable for mounting on 2 ½ inch (64mm) deep 2-gang boxes or 1 ½ inch (38mm) deep 4 inch square boxes with 2-gang covers. The single input signal module shall support the following operations:
 - a. Audible/Visible Signal Power Selector (Polarized 24 VDC @ 2A, 25Vrms @ 50w or 70 Vrms @ 35 Watts of Audio).
 2. Basis of Design: Edwards model SIGA-CC1.
- H. Universal Class AB Module
1. Provide intelligent class A/B modules at the locations shown on the drawings. The Universal Class A/B Module shall be capable of a minimum of fifteen (15) distinct operations. The module shall be suitable for mounting on 2 ½ inch (64mm) deep 2-gang boxes or 1 ½ inch (38mm) deep 4 inch square boxes with 2-gang covers. The universal class A/B module shall support the following circuit types:
 - a. Two (2) supervised Class B Normally-Open Alarm Latching.
 - b. Two (2) supervised Class B Normally-Open Alarm Delayed Latching.
 - c. Two (2) supervised Class B Normally-Open Active Non-Latching.
 - d. Two (2) supervised Class B Normally-Open Active Latching.
 - e. One (1) form "C" dry relay contact rated at 2 amps @ 24 VDC.
 - f. One (1) supervised Class A Normally-Open Alarm Latching.

- g. One (1) supervised Class A Normally-Open Alarm Delayed Latching.
 - h. One (1) supervised Class A Normally-Open Active Non-Latching.
 - i. One (1) supervised Class A Normally-Open Active Latching.
 - j. One (1) supervised Class A 2-wire Smoke Alarm Non-Verified.
 - k. One (1) supervised Class B 2-wire Smoke Alarm Non-Verified.
 - l. One (1) supervised Class A 2-wire Smoke Alarm Verified
 - m. One (1) supervised Class B 2-wire Smoke Alarm Verified
 - n. One (1) supervised Class A Signal Circuit, 24VDC @ 2A.
 - o. One (1) supervised Class B Signal Circuit, 24VDC @ 2A.
2. Basis of Design: Edwards model SIGA-UM.

2.6 CONDUCTORS

- A. The requirement of this section apply to all system conductors, including all signaling line, initiating device, notification appliance, auxiliary function, remote signaling, AC and DC power and grounding/shield drain circuits, and any other wiring installed by the Contractor pursuant to the requirements of these Specifications.
- B. All circuits shall be rated power limited in accordance with NEC Article 760.
- C. Installed in conduit or enclosed raceway.
- D. All new system conductors shall be of the type(s) specified herein.
 - 1. All initiating circuit, signaling line circuit, AC power conductors, shield drain conductors and grounding conductors, shall be solid copper, stranded or bunch tinned (bonded) stranded copper.
 - 2. All signaling line circuits, including all addressable initiating device circuits shall be 18 AWG minimum multi-conductor jacketed twisted cable or twisted shielded or as per manufacturer's requirements.
 - 3. All non-addressable initiating device circuits, 24 VDC auxiliary function circuits shall be 18 AWG minimum or per manufacturer's requirements.
 - 4. All notification appliance circuit conductors shall be solid copper or bunch tinned (bonded) stranded copper. Where stranded conductors are utilized, a maximum of 19 strands shall be permitted for #12/AWG and larger conductors. Minimum size conductor shall be #12 AWG.
 - 5. All audible notification appliance circuits shall be 14 AWG minimum twisted pairs or twisted pairs shielded or per manufacturer's requirements.
 - 6. All visual notification appliance circuits shall be #12 AWG minimum THHN or twisted pairs or twisted shielded pairs or per manufacturer's requirements.
 - 7. Color code fire alarm conductors as follows:

<u>ITEM</u>	<u>COLOR</u>
Initiating Device	Orange/Brown
Speakers	Red
Flashing Lights	Blue and Yellow

- 8. All conductors shall be terminated with crimp type, open end, space lugs using tool approved by lug manufacturer. Terminal cabinets shall be provided with screw type terminal strips and plywood backboards.

2.7 CONDUCTORS AND RACEWAY

- A. Except as otherwise required by Code and/or these Specifications, the installation of all system circuits shall conform to the requirements of Article 760 and raceway installation to the applicable sections of NFPA 70, National Electrical Code. Fire alarm circuit wiring shall include all circuits described in

Section 760.1 including Fine Print Note No. 1 (FPN No. 1), and as defined by the manufacturer's UL listing.

- B. The entire system shall be installed in a skillful manner in accordance with approved manufacturer's installation manuals, shop drawings and wiring diagrams. The contractor shall furnish all conduit, wiring, outlet boxes, junction boxes, cabinets and similar devices necessary for the complete installation. All wiring shall be of the type required by the NEC and approved by local authorities having jurisdiction for the purpose.
- C. Any shorts, opens, or grounds found on new or existing wiring shall be corrected prior to the connection of these wires to any panel component or field device.
- D. The contractor shall neatly tie-wrap all field-wiring conductors in the gutter spaces of the control panels and secure the wiring away from all circuit boards and control equipment components. All field-wiring circuits shall be neatly and legibly labeled in the control panel. No wiring except home runs from life safety system circuits and system power supply circuits shall be permitted in the control panel enclosures. No wiring splices shall be permitted in a control panel enclosure.
- E. All penetration of floor slabs and firewalls shall be fire stopped in accordance with all local fire codes.

2.8 OPEN CABLE

- A. Power-limited cable in accordance with NEC Article 760, where used, not installed in UL listed metal conduit or raceway shall be mechanically protected by building construction features:
- B. Installation shall be in areas not subjected to mechanical injury.
- C. All circuits shall be supported by the building structure. Cable shall be attached by straps to the building structure at intervals not greater than 10 feet. Wiring installed above drop ceilings; cable shall not be laid on ceiling tiles. Cable shall not be fastened in a manner that puts tension on the cable.
- D. Cable type shall be FPLP, FPLR or FPL, or permitted substitutions, selected for the installation application as required by NEC 70, Section 760-61.
- E. All cable that is not enclosed by conduit shall be supported and anchored with nylon straps or clamps. The use of staples is prohibited.
- F. The entire fire alarm system shall utilize an independent wiring system not shared with any other building systems.

2.9 CONDUIT RACEWAY

- A. All systems and system components listed to UL864 Control Units for Fire Protective Signaling Systems maybe installed within a common conduit raceway system, in accordance with the manufacture's recommendations. System(s) or system components not listed to the UL864 standard shall utilize a separate conduit raceway system for each of the sub-systems.
- B. The requirements of this section apply to all system conduits, raceways, electrical enclosures, junction boxes, pull boxes and device back boxes.
- C. All system conduits shall be of the sizes and types specified.

- D. All system conduits shall be EMT, 3/4 -inch minimum, except for flexible metallic conduit used for whips to devices only, maximum length 6 feet, 3/4-inch diameter, minimum.
- E. All system conduits, which are installed in areas, which may be subject to physical damage or weather, shall be IMC or rigid steel, 3/4 -inch minimum.
- F. Conduits shall be sized according to the conductors contained therein. Cross sectional area percentage fill for system conduits shall not exceed 40 percent.
- G. All fire alarm conduit systems shall be routed and installed to minimize the potential for physical, mechanical or by fire damage, and so as not to interfere with existing building systems, facilities or equipment, and to facilitate service and minimize maintenance.
- H. All conduits, except flexible conduit whips to devices, shall be solidly attached to building structural members, ceiling slabs or permanent walls. Conduits shall not be attached to existing conduit, duct work, cable trays, other ceiling equipment, drop ceiling hangers/grids or partition walls, except where necessary to connect to initiating, notification, or auxiliary function devices.
- I. All system conduits, junction boxes, pull boxes, terminal cabinets, electrical enclosures and device back boxes shall be readily accessible for inspection, testing, service and maintenance.
- J. All electrical junction boxes shall be labeled "Fire Alarm System" with decal or other approved markings and shall be painted "red".

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Section 017300 - Execution: Verification of existing conditions before starting work.
- B. Verification of Conditions: Verify that field measurements, surfaces, substrates and conditions are as required, and ready to receive Work.
 - 1. Examine areas in which Work of this Section is to be performed.
 - 2. Verify that surfaces and site conditions are ready to receive Work.
- C. Report in writing to USPS Project Manager prevailing conditions that will adversely affect satisfactory execution of the Work of this Section. Do not proceed with Work until unsatisfactory conditions have been corrected.
- D. By beginning Work, Contractor accepts conditions and assumes responsibility for correcting unsuitable conditions encountered at no additional cost to the United States Postal Service.

3.2 INSTALLATION

- A. General
 - 1. All equipment shall be attached to walls and ceiling/floor assemblies and shall be mounted firmly in place. Detectors shall not be supported solely by suspended ceilings. Fasteners and supports shall be sized to support the required load.
- B. Installation Sequence
 - 1. Installation of the systems shall be conducted in stages and phased such that circuits and equipment are installed in the following order:

- a. Riser conduits, AC power conduits and control cabinets.
 - b. Conduits and wiring for complete notification circuits and appliance installation throughout facility.
 - c. Pre-test the audible and visual notification appliance circuits.
 - d. Install all new detection devices.
 - e. Terminate between field devices and the associated control equipment.
 - f. Complete contractor pre-test of system.
 - g. Complete system testing.
- C. Detectors:
- 1. A unique identification number shall be assigned to each detector. (Identification shall be by zone number and device number within the zone.) This number shall be noted on the submittals and as built plans, and also be permanently mounted adjacent to the detector or affixed to its base.
 - 2. Smoke- or Heat-Detector Spacing:
 - a. Comply with NFPA 72, "Smoke-Sensing Fire Detectors" Section in the "Initiating Devices" Chapter, for smoke-detector spacing.
 - b. Comply with NFPA 72, "Heat-Sensing Fire Detectors" Section in the "Initiating Devices" Chapter, for heat-detector spacing.
 - c. Smooth ceiling spacing shall not exceed 30 feet (9 m).
 - d. Spacing of detectors for irregular areas, for irregular ceiling construction, and for high ceiling areas shall be determined according to Appendix A or Appendix B in NFPA 72.
 - e. HVAC: Locate detectors not closer than 3 feet (1 m) from air-supply diffuser or return-air opening.
 - f. Lighting Fixtures: Locate detectors not closer than 12 inches (300 mm) from any part of a lighting fixture.
 - 3. Remote Status and Alarm Indicators: Install near each smoke detector and each sprinkler water-flow switch and valve-tamper switch that is not readily visible from normal viewing position.
- D. Install products in accordance with NFPA standards and manufacturer's published instructions.
- E. Install manual station with operating handle 44 inches above floor. Install audible and visual signal devices in accordance with NFPA 72 and ANSI/UL 1971.
- F. End-of-line resistor device at the last easily accessible mount device or separate box adjacent to last device.

3.3 CONNECTIONS

NOT USED

3.4 PREPARATION

- A. Coordinate work of this Section with other affected work and construction schedule.

3.5 FIELD QUALITY CONTROL

- A. Section 014000 - Quality Requirements: Field testing and inspection.
- B. Manufacturer's Field Services: Provide services of NICET certified Level III technician to supervise installation, adjustments, final connections, and system testing. Submit written certification on manufacturers letterhead to USPS Project Manager that system has been installed in accordance with

applicable codes and is functioning properly. Provide copy of "Certificate of Completion" and place inside plastic envelope at Fire Alarm Control Panel.

- C. Tests and Inspections: The contractor shall perform all testing in occupied facilities at times of day that present the lowest impact and disruption to business and activities. Coordinate all testing in occupied buildings with the building owner's representative to assure that fire alarm system testing does not interrupt operations. This may require extensive after hours work to perform such testing.
- D. Visual Inspection:
 - 1. Conduct visual inspection prior to testing.
 - a. Inspection shall be based on completed Record Drawings and system documentation that is required by NFPA 72 in its "Completion Documents, Preparation" Table in the "Documentation" Section of the "Fundamentals of Fire Alarm Systems" Chapter.
 - b. Comply with "Visual Inspection Frequencies" Table in the "Inspection" Section of the "Inspection, Testing and Maintenance" Chapter in NFPA 72; retain the "Initial/Reacceptance" column and list only the installed components.
 - 2. System Testing: Comply with "Test Methods" Table in the "Testing" Section of the "Inspection, Testing and Maintenance" Chapter in NFPA 72.
 - 3. Factory-authorized service representative shall prepare the "Fire Alarm System Record of Completion" in the "Documentation" Section of the "Fundamentals of Fire Alarm Systems" Chapter in NFPA 72 and the "Inspection and Testing Form" in the "Records" Section of the "Inspection, Testing and Maintenance" Chapter in NFPA 72. The systems operation matrix created by the equipment supplier shall be used to identify each alarm input and verify all associated output functions.
- E. Fire-alarm system components provided under this contract will be considered defective if it does not pass tests and inspections.
- F. Prepare test and inspection reports.
- G. Advise Plant, Engineer and authorities having jurisdiction in advance of dates and times that tests are to be performed on fire alarm systems.
- H. The system test plan shall include but not be limited to the following:
 - 1. Visually inspect all wiring.
 - 2. Verify the absence of unwanted voltages between circuit conductors and ground. The tests shall be accomplished at the preliminary test with results available at the final acceptance test.
 - 3. System wiring shall be tested to demonstrate correct system response for the following conditions:
 - a. Open, shorted and grounded signal line circuits.
 - b. Open, shorted and grounded notification appliance circuits.
 - 4. System indications shall be demonstrated as follows:
 - a. Correct message content for each alarm input at all system displays.
 - b. Correct annunciator light for each alarm input at each graphic display.
 - c. Correct history logging for all system activity.
 - d. Correct sensitivity for all smoke detection devices. The use of system generated sensitivity reports is acceptable in meeting this requirement.
 - e. Correct signals sent to the Central Monitoring Station.
 - 5. Notification appliances shall be demonstrated as follows:
 - a. All alarm notification appliances actuate as programmed
 - b. The system shall be tested for interior building audibility of 15 dBA-fast over ambient condition.
 - c. For 24 VDC NACS, measure and record the voltage at the most remote appliance on each notification appliance circuit, while operating.

6. System control functions shall be demonstrated as follows: In accordance with the system operation matrix.
 7. System off premises reporting functions shall be demonstrated as follows: Correct information received for each "Contact ID – Point Address" event.
 8. Secondary power supply (battery) capacity capabilities shall be demonstrated as follows, if all FACP's and associated booster power supplies are not connected to an emergency power circuit that is supported by an on-site generator:
 - a. System battery voltages and charging currents shall be measured and recorded at the fire alarm control panels.
 - b. System primary power shall be disconnected for 24 hours. At the end of that period, an alarm condition shall be created, and the system shall perform as specified for a period of 5 minutes.
 - c. System primary power shall be restored for forty-eight (48) hours.
 - d. System battery voltages and charging currents shall again be measured and recorded at the fire alarm control panels.
 9. Verify the "As Built" record drawings are accurate.
- I. Preliminary Testing: Conduct preliminary tests to ensure that all devices and circuits are functioning properly. Tests shall meet the requirements of the written test plan. Correct any deficiencies, omissions or anomalies and retest the affected devices to assure proper function per the specification.
- J. Acceptance Testing:
1. A final acceptance test shall not be scheduled until the system manuals are provided to and approved by the owner and the following are provided at the job site:
 - a. "As Built" Record drawings of the system as actually installed,
 - b. A copy of the system operation matrix.
 2. The acceptance inspector shall use the system "As Built" record drawings in combination with the system operation matrix and the written acceptance test plan during the testing to verify system operation.
 3. Should the system not perform to the above criteria it shall not be accepted and the Contractor shall correct all deficiencies and shall re-test the system at Contractor's expense in the presence of the Architect using the same test criteria.
 4. The building owner's representative shall witness the final tests.
 5. The central station remote monitoring company and/or fire department shall be notified before final test in accordance with local requirements.
 6. Operate every installed device to verify proper operation and correct annunciation at control panel.
 7. Open signaling line circuits and notification appliance circuits in at least 2 locations to verify presence of supervision.
- K. Test Reports:
1. A "Fire Alarm System Record of Completion" per the "Documentation" Section of the "Fundamentals of Fire Alarm Systems" Chapter in NFPA72 and the "Inspection and Testing Form" in the "Records" Section of the "Inspection, Testing and Maintenance" Chapter in shall be prepared by the Contractor. Submit three (3) copies to the Architect. The report shall include, but not be limited to:
 - a. A list of all equipment installed and wired.
 - b. Certification that all equipment is properly installed and functions and conforms to these specifications.
 - c. Sensitivity settings for each ionization and photoelectric detector as measured in place with the HVAC system operating.
 - d. Technician's name, certificate number and date.

3.6 WARRANTY AND MAINTENANCE

- A. Warranty: The contractor shall warranty all materials, installation and workmanship for 24 months year from date of acceptance, unless otherwise specified. A copy of the manufacturer's warranty shall be provided with close-out documentation and included with the operation and installation manuals. The full cost of maintenance labor and materials required to correct any defect during the warranty period shall be included in the submitted bid.

3.7 TRAINING

- A. The System Supplier shall schedule and present a minimum of four (4) hours of documented formalized instruction for the building owner, detailing the proper operation of the installed System.
- B. The instruction shall be presented in an organized and professional manner by a person factory trained in the operation and maintenance of the equipment and who is also thoroughly familiar with the installation.
- C. The instruction shall cover the schedule of maintenance required by NFPA 72 and any additional maintenance recommended by the system manufacturer.
- D. Instruction shall be made available to the Local Municipal Fire Department if requested by the AHJ.

END OF SECTION

USPS Mail Processing Facility Specifications issued: 10/1/2020
Last revised: 7/31/2019

DRAWINGS LIST/DRAWINGS

*** Attached separately**

Attachment 02

PERFORMANCE BOND (FORM)

Attachment 03



Performance Bond

Facility: HARTFORD, CT - P&DC 141 Weston Street Hartford, CT 06101-9612	Contract Date:	Contract Number:
Principal (Legal Name and business address):	TYPE OF ORGANIZATION ("X" one)	
	☐ INDIVIDUAL ☐ PARTNERSHIP ☐ JOINT VENTURE ☐ CORPORATION	
	STATE OF INCORPORATION: _____	
Parent Surety: Name: Contact: Address: City: State: Zip: Phone: Fax:	Local Surety: Name: Contact: Address: City: State: Zip: Phone: Fax:	

Penal Sum of Bond:

We, the principal and Surety(ies) hereto, are firmly bound to the United States Postal Service (the Postal Service) in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally: Provided that where the sureties are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum jointly and severally as well as severally only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

THE CONDITIONS OF THIS OBLIGATION is that the Principal and the Postal Service entered into the contract identified above. If the Principal:

(a) Performs and fulfills all the terms and conditions of the contract during its original term and any extensions granted by the Postal Service, with or without notice to the Surety(ies) and during the life of any warranty or guaranty required under the contract, and performs and fulfills all the terms and conditions all duly authorized modifications of the contract, notice of which Surety(ies) hereby waive(s); and

(b) If the contract is subject to the Miller Act, as amended (40 U.S.C. 270a-270e), pay to the Postal Service the full amount of the taxes imposed which are collected, deducted, or withheld from wages paid by the Principal in carrying out the construction contract with respect to which the bond is furnished; then the above obligation shall be void.

IN WITNESS WHEREOF, the Principal and Surety(ies) have executed this performance bond and have affixed their seals on the date set forth above.

PRINCIPAL

Signature

Seal

Name & Title (Typed)

Signature

Seal

Name & Title (Typed)



Performance Bond

CORPORATE SURETY(IES)

SURETY A

Name & Address

State of Incorporation

Liability Limit

Signature

Name & Title (Typed)

Seal

SURETY B

State of Incorporation

Liability Limit

Signature

Name & Title (Typed)

Seal

	Rate per Thousand	Total
Bond Premium	\$	\$

PERFORMANCE BOND INSTRUCTIONS

1. This form is authorized for use in connection with contracts for construction work or the furnishing of supplies or services. There may be no deviation from this form without approval from the U. S. Postal Service.
2. The full legal name and business address of the Principal must be inserted in the space designated PRINCIPAL on the face of this form. The bond must be signed by an authorized person. Where such person is signing in a representative capacity (e.g., an attorney-in-fact), but is not a member of the firm, partnership or joint venture, or an officer of the corporation involved, evidence of authority must be furnished.
3. Corporations executing the bond as sureties must be among those appearing on the Treasury Department's list of approved sureties and must be acting within the limitations set forth therein. Where more than a single corporation surety is involved, their names and addresses (City and State) must be inserted in the spaces (Surety A, Surety B, etc.) headed CORPORATE SURETY(IES), and in the space designated Surety(ies) on the face of this form only the letter identification of the Sureties must be inserted.
4. Corporations executing the bond must affix their seals. Individuals must execute the bond above the word SEAL, and, if executed in Maine or New Hampshire, must also affix an adhesive seal.
5. The name of each person signing this performance bond should be typed in the space provided.

PAYMENT BOND (FORM)

Attachment 04



Payment Bond

Facility:
HARTFORD, CT - P&DC 141 Weston Street Hartford,
CT 06101-9612

Contract Date:

Contract Number:

Principal (Legal Name and business address):

TYPE OF ORGANIZATION ("X" one)

☐

INDIVIDUAL

☐

PARTNERSHIP

☐

JOINT VENTURE

☐

CORPORATION

STATE OF INCORPORATION: _____

Parent Surety:

Name:

Contact:

Address:

City:

State:

Zip:

Phone:

Fax:

Local Surety:

Name:

Contact:

Address:

City:

State:

Zip:

Phone:

Fax:

Penal Sum of Bond:

We, the principal and Surety(ies) hereto, are firmly bound to the United States Postal Service (the Postal Service) in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally: Provided that where the sureties are corporations acting as co-sureties, we the Sureties, bind ourselves in such sum jointly and severally as well as severally only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

THE CONDITIONS OF THIS OBLIGATION is that the Principal and the Postal Service entered into the contract identified above (the contract). If the Principal promptly pays all persons supplying labor and material in the prosecution of the work provided for in the contract, and any and all duly authorized modifications of the contract notice of which the Surety(ies) hereby waive(s), then the above obligation shall be void.

IN WITNESS WHEREOF, the Principal and Surety(ies) have executed this payment bond and have affixed their seals on the date set forth above.

PRINCIPAL

Signature

Seal

Name & Title (Typed)

Signature

Seal

Name & Title (Typed)



Payment Bond

CORPORATE SURETY(IES)

SURETY A

Name & Address

State of Incorporation

Liability Limit

Signature

Name & Title (Typed)

Seal

SURETY B

State of Incorporation

Liability Limit

Signature

Name & Title (Typed)

Seal

PAYMENT BOND INSTRUCTIONS

1. This form for the protection of persons supplying labor and material must be used whenever a payment bond is required under the act of August 24, 1935, 49 Stat. 793 as amended (40 U.S.C. 270a-270e). There must be no deviation from this form without approval from U. S. Postal Service.
2. The full legal name and business address of the Principal must be inserted in the space designated PRINCIPAL on the face of this form. The bond must be signed by an authorized person. Where such person is signing in a representative capacity (e.g., an attorney-in-fact), but is not a member of the firm, partnership or joint venture, or an officer of the corporation involved, evidence of authority must be furnished.
3. Corporations executing the bond as sureties must be among those appearing on the Treasury Department's list of approved sureties and must be acting within the limitations set forth therein. Where more than a single corporation surety is involved, their names and addresses (City and State) must be inserted in the spaces (Surety A, Surety B, etc.) headed CORPORATE SURETY(IES), and in the space designated Surety(ies) on the face of this form only the letter identification of the Sureties must be inserted.
4. Corporations executing the bond must affix their seals. Individuals must execute the bond above the word SEAL, and, if executed in Maine or New Hampshire, must also affix an adhesive seal.
5. The name of each person signing this payment bond should be typed in the space provided.

DOL WAGE RATES (DAVIS BACON) (CT20220021 HARTFORD 02/04/2022)

Attachment 05

"General Decision Number: CT20220021 02/04/2022

Superseded General Decision Number: CT20210021

State: Connecticut

Construction Type: Building

County: Hartford County in Connecticut.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022, Executive Order 14026 generally applies to the contract. The contractor must pay all covered workers at least \$15.00 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2022.

If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022, Executive Order 13658 generally applies to the contract. The contractor must pay all covered workers at least \$11.25 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2022.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/07/2022
1	01/14/2022
2	02/04/2022

ASBE0033-002 06/01/2021

	Rates	Fringes
--	-------	---------

HEAT & FROST INSULATOR (Includes Duct, Pipe and Mechanical Systems).....	\$ 43.72	30.99
--	----------	-------

* BRCT0001-001 01/03/2022

	Rates	Fringes
BRICKLAYER.....	\$ 37.75	34.62

* BRCT0001-002 01/03/2022		

	Rates	Fringes
BRICK POINTER/CAULKER/CLEANER....	\$ 37.75	34.62

* BRCT0001-005 01/03/2022		

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 37.75	34.62

CARP0326-024 05/03/2021		

	Rates	Fringes
FLOOR LAYER: Carpet Only.....	\$ 35.57	25.65

CARP0326-025 05/03/2021		

	Rates	Fringes
FLOOR LAYER: Hardwood Floors Only.....	\$ 35.57	25.65

CARP0326-027 05/03/2021		

	Rates	Fringes
CARPENTER (Scaffold Builder).....	\$ 35.57	25.65

CARP0326-028 05/03/2021		

	Rates	Fringes
CARPENTER (Includes Acoustical Ceiling Installation, Drywall Hanging, Form Work, and Metal Stud Installation).....	\$ 35.57	25.65

ELEC0035-014 06/01/2021		

	Rates	Fringes
ELECTRICIAN (Including Low Voltage Wiring).....	\$ 40.75	3%+30.47

ELEV0091-002 01/01/2022		

	Rates	Fringes
ELEVATOR MECHANIC.....	\$ 58.90	36.885+a+b

ENGI0478-004 04/04/2021		

	Rates	Fringes
POWER EQUIPMENT OPERATOR (Backhoe/Excavator/Trackhoe).....	\$ 42.72	25.80

PAID HOLIDAYS: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, provided the employee works 3 days during the week in which the holiday falls, if scheduled, and if scheduled, the working day before and the working day after the holiday.

 ENGI0478-005 04/04/2021

	Rates	Fringes
POWER EQUIPMENT OPERATOR (Bulldozer)		
Finegrade (Slopes, Shaping, laser or GPS, etc.).....	\$ 42.72	25.80
Rough Grade Dozer.....	\$ 41.31	25.80

PAID HOLIDAYS: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, provided the employee works 3 days during the week in which the holiday falls, if scheduled, and if scheduled, the working day before and the working day after the holiday.

 ENGI0478-012 04/04/2021

	Rates	Fringes
POWER EQUIPMENT OPERATOR (Crane under 100 ton rated capacity)).....		
	\$ 42.72	25.80

When crane operator is operating equipment that requires a fully licensed crane operator to operate he receives an extra \$4.00 premium in addition to the hourly wage rate and benefit contributions:

PAID HOLIDAYS: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, provided the employee works 3 days during the week in which the holiday falls, if scheduled, and if scheduled, the working day before and the working day after the holiday.

 ENGI0478-016 04/04/2021

	Rates	Fringes
POWER EQUIPMENT OPERATOR (Loader - 7 cubic yards or over).....		
	\$ 43.88	25.80

PAID HOLIDAYS: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, provided the employee works 3 days during the week in which the holiday falls, if scheduled, and if scheduled, the working day before and the working day after the holiday.

IRON0015-010 06/07/2021

	Rates	Fringes
IRONWORKER (Reinforcing, Structural, Ornamental).....	\$ 38.17	38.02

LABO0230-001 04/04/2021

	Rates	Fringes
LABORER		
Common or General.....	\$ 31.50	23.25
Mason Tender- Cement/Concrete.....	\$ 32.00	23.25

PAIN0011-014 06/01/2021

	Rates	Fringes
GLAZIER.....	\$ 39.98	22.90

PAIN0011-021 06/01/2021

	Rates	Fringes
PAINTER (Brush and Roller).....	\$ 36.42	22.90

PAIN0011-023 06/01/2021

	Rates	Fringes
DRYWALL FINISHER/TAPER.....	\$ 37.17	22.90

PLUM0777-001 06/01/2021

	Rates	Fringes
PLUMBER.....	\$ 45.83	33.50

PLUM0777-003 06/01/2021

	Rates	Fringes
PIPEFITTER.....	\$ 45.83	33.50

PLUM0777-004 06/01/2021

	Rates	Fringes
PLUMBER (HVAC Pipe Installation).....	\$ 45.83	33.50

ROOF0009-001 06/01/2021

	Rates	Fringes
ROOFER		
Composition.....	\$ 38.90	21.85
Slate and Tile.....	\$ 39.40	21.85

SFCT0669-002 04/01/2021

	Rates	Fringes
--	-------	---------

SPRINKLER FITTER.....\$ 47.55 26.60

SHEE0040-001 07/01/2021

Rates Fringes

SHEET METAL WORKER (Including
HVAC Unit Installation).....\$ 40.08 40.53

SHEE0040-002 07/01/2021

Rates Fringes

SHEET METAL WORKER (Metal
Flashing and HVAC Duct
Installation Only).....\$ 40.08 40.53

SHEE0040-008 07/01/2021

Rates Fringes

SHEET METAL WORKER (Metal
Roofs Installation).....\$ 40.08 40.53

TEAM0677-001 04/04/2021

Rates Fringes

TRUCK DRIVER (Dump Truck).....\$ 30.39 27.16

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the

cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union, which prevailed in the survey for this classification, which in this example would be Plumbers 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Division National Office Branch of Wage Surveys. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

DOL WAGE RATE REPORT (FORM)

Attachment 06

PAYROLL NO.	FOR WEEK ENDING	PROJECT AND LOCATION	PROJECT OR CONTRACT NO.
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[illegible]

While completion of Form WH-347 is optional, it is mandatory for covered contractors performing work on Federally financed or assisted construction contracts to respond to the information collection contained in 29 C.F.R. §§ 3.3, 5.5(a). The Copeland Act (40 U.S.C. § 3145) requires contractors performing work on Federally financed or assisted construction contracts to "furnish weekly a statement with respect to the wages paid each employee during the preceding week." U.S. Department of Labor (DOL) regulations at 29 C.F.R. § 5.5(a)(3)(i) require contractors to submit weekly a copy of all payrolls to the Federal agency contracting for or financing the construction project, accompanied by a signed "Statement of Compliance" indicating that the payrolls are correct and complete and that each laborer or mechanic has been paid not less than the proper Davis-Bacon prevailing wage rate for the work performed. DOL and federal contracting agencies receiving this information review the information to determine that employees have received legally required wages and fringe benefits.

Date _____

I, _____ (Name of Signatory Party) _____ (Title)
do hereby state:

(1) That I pay or supervise the payment of the persons employed by

_____ on the _____
(Contractor or Subcontractor)
_____ ; that during the payroll period commencing on the _____
(Building or Work)

_____ day of _____, _____, and ending the _____ day of _____, _____,
all persons employed on said project have been paid the full weekly wages earned, that no rebates have
been or will be made either directly or indirectly to or on behalf of said

_____ from the full _____
(Contractor or Subcontractor)

weekly wages earned by any person and that no deductions have been made either directly or indirectly
from the full wages earned by any person, other than permissible deductions as defined in Regulations, Part
3 (29 C.F.R. Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948,
63 Stat. 108, 72 Stat. 967, 76 Stat. 357; 40 U.S.C. § 3145), and described below:

(2) That any payrolls otherwise under this contract required to be submitted for the above period are
correct and complete; that the wage rates for laborers or mechanics contained therein are not less than the
applicable wage rates contained in any wage determination incorporated into the contract; that the classifications
set forth therein for each laborer or mechanic conform with the work he performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship
program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and
Training, United States Department of Labor, or if no such recognized agency exists in a State, are registered
with the Bureau of Apprenticeship and Training, United States Department of Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS

☐ — in addition to the basic hourly wage rates paid to each laborer or mechanic listed in
the above referenced payroll, payments of fringe benefits as listed in the contract
have been or will be made to appropriate programs for the benefit of such employees,
except as noted in section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

☐ — Each laborer or mechanic listed in the above referenced payroll has been paid,
as indicated on the payroll, an amount not less than the sum of the applicable
basic hourly wage rate plus the amount of the required fringe benefits as listed
in the contract, except as noted in section 4(c) below.

(c) EXCEPTIONS

EXCEPTION (CRAFT)	EXPLANATION

REMARKS:

NAME AND TITLE	SIGNATURE
THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION. SEE SECTION 1001 OF TITLE 18 AND SECTION 231 OF TITLE 31 OF THE UNITED STATES CODE.	

SUBCONTRACTING PLAN

Attachment 07

Contract Number

**Small, Minority and Woman-owned Business Enterprise
Subcontracting Plan**

Define actions your firm will take to meet or exceed the small, minority, and woman owned business subcontracting goals contained in the Solicitation. You should also describe non-project specific corporate small, minority, and woman owned business plan. The project specific performance, plan versus actual will be reviewed at every monthly progress meeting. Submit a subcontracting plan in accordance with the following format.

Firm Name:	
Street Address:	
City/State/Zip:	

Solicitation Number:	
Project Name:	
Project Number:	
Project Location:	

A. Contract/Subcontract Values:

Contract Value:	\$
Total dollars to be subcontracted:	\$
Total percentage of contract to be subcontracted:	%

B. Subcontracting Goals:

The supplier must include all subcontracts that contribute to contract performance, and may include a proportionate share of supplies and services that are normally allocated as indirect costs.

Subcontracting goals for:	USPS Goals	Contractor's plan	\$ to be Contracted
Small Business Enterprises	29.20% %	%	\$
Minority Owned Business Enterprise	3.70% %	%	\$
Woman Owned Business Enterprise	5.60% %	%	\$

C. Subcontracting Plan Management:

Complete the following for all individuals with the responsibilities to manage the subcontracting plan:

Name:	
Title:	
Street Address:	
City/State/Zip:	
Telephone Number:	
Project Responsibilities:	
Authorities & Limitation:	

C. Subcontracting Plan Management (continued):

Name:	
Title:	
Street Address:	
City/State/Zip:	
Telephone Number:	
Project Responsibilities:	
Authorities & Limitation:	

D. Detailed Narrative of Subcontracting Plan:

Submit a project specific detailed narrative to include: sourcing plan, outreach, contracting strategies, management and control, quality assurance, monitoring and reporting. If you propose goals less than what was specified in the solicitation give rationale and justification. The narrative should be limited to three (3) pages and must include as a minimum the following topics:

1. A description of the method used to develop subcontracting goals for this contract.
2. A description of the methods used to identify potential sources for solicitation purposes and a description of efforts the supplier will make to ensure that small minority and woman owned businesses have an equitable opportunity to compete for subcontracts.
3. A statement as to whether the offer included indirect costs in establishing subcontracting goals for this contract and a description of the method used to determine the proportionate share of indirect costs to be incurred with small minority and woman-owned businesses.
4. Assurance that the supplier will require all subcontractors receiving subcontracts in excess of \$1,000,000.00 to adopt a plan similar to the plan agreed to by the supplier.
5. A description of the types of records the supplier will maintain to demonstrate compliance with the requirements and goals in the plan for this contract. The record must include at least the following:
 - (a) Source lists, guides, and other data identifying small, minority, and women-owned businesses;
 - (b) Organizations contacted in an attempt to locate sources that are small, minority, and woman-owned businesses;
 - (c) Records on each subcontract solicitation resulting in an award of more than \$100,000, indicating whether small, minority, or woman-owned businesses were solicited and if not, why not; and
 - (d) Records to support subcontract award data, including the name, address, and business size of each subcontractor.

E. Non-project Specific:

Indicate all Corporate Small, Minority, and Woman-owned Business plans involved to include: description of corporate plan, percentages of subcontract (professional, accounting, supplies etc.) based on percentages of annual dollars. Limit to one page.

Contract Number

F. Business Enterprises:

List of identified small business, minority owned, women owned business sources circle all that apply.

[illegible]

Type of Enterprise:

S Small Business
M Minority Business
W Woman Owned Business

Contract Number

G. Sourcing Contacts:

List of Sources contacted to identify and advertise opportunities to subcontract:

Sourcing Contacts				
Source	Phone # E-Mail	Contact Name	Address	Type of organization (circle all that apply)
				1 2 3 4 5 6 7
				1 2 3 4 5 6 7
				1 2 3 4 5 6 7
				1 2 3 4 5 6 7
				1 2 3 4 5 6 7
				1 2 3 4 5 6 7
				1 2 3 4 5 6 7
				1 2 3 4 5 6 7
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				1 2 3 4 5 6 7
				1 2 3 4 5 6 7
				1 2 3 4 5 6 7
				1 2 3 4 5 6 7
				1 2 3 4 5 6 7

Type of Organization (such as):

- | | |
|---------------------|--------------------------|
| 1. Trade Union | 5. State or Local Agency |
| 2. Publication | 6. Industry Organization |
| 3. WOB Organization | 7. Other |
| 4. MBE Organization | |

Contract Number

H. Subcontracting Opportunities:

List of work to be subcontracted and list identified possible opportunity.

[illegible]

Contract Number

I certify that we will make every effort to comply with the goals established by this plan.

Contractor's Signature: _____ Title: _____ Date: _____

Contracting Officer Acceptance: _____ Date: _____

RELEASE OF CLAIMS (FORM)

Attachment 08

CONTRACTOR'S RELEASE

Contract No. _____

Pursuant to the terms of _____ and in consideration of the sum of _____ which has been or is to be paid under the said contract to _____ (hereinafter called the Contractor) or its assignees, if any, the Contractor, upon payment of the said sum by the UNITED STATES POSTAL SERVICE. (hereinafter called the Postal Service), does remise, release and discharge the Postal Service, its officers, agents and employees, of and from all liabilities, obligations, claims, and demands whatsoever under or arising from the said contract except:

1. Specified claims in stated amounts, or in estimated amounts where the amounts are not susceptible of exact statement by the Contractor, as follows:
2. Claims, together with reasonable expenses incidental thereto, based upon the liabilities of the Contractor to third parties arising out of the performance of the said contract, which are not known to the Contractor on the date of the execution of this release and of which the Contractor gives notice in writing to the Contracting Officer within the period specified in the said contract.
3. Claims for reimbursement of costs (other than expenses of the Contractor by reason of its indemnification of the Postal service against patent liability), including reasonable expenses incidental thereto, incurred by the Contractor under the provisions of the said contract relating to patents.

The Contractor agrees, in connection with patent matters and with claims which are not released as set forth above, that it will comply with all of the provisions of the said contract, including without limitation those provisions relating to notification of the Contracting Officer and relating to the defense or prosecution of litigation.

IN WITNESS WHEREOF, this release has been executed this _____ day of _____.

Name of Contractor

By _____

Title _____

Certificate

I, _____ certify that I am the _____ of the corporation named as Contractor in the foregoing release; that _____ who signed said release on behalf of the Contractor was then _____ of said corporation; that said release was duly signed for and in behalf of said corporation by authority of its governing body and is within the scope of its corporate powers.
(CORPORATE SEAL)

STATE SALES TAX EXEMPTION INFO.

Attachment 09

	SSUTA	EXEMPTION AVAILABLE	RESOURCES AND FORMS
CONNECTICUT	No	Yes	http://www.ct.gov/drs/site/default.asp CERT-141, <u>Contractors Exempt Purchase Certificate</u> (contractor completes form) IP 2006(35), <u>Building Contractors' Guide to Sales and Use Taxes</u> AN 2009(6), <u>New Contractor's Exempt Purchase Certificate, CERT-141</u>

3. Connecticut: Connecticut allows construction contractors performing repairs, alterations, improvements, remodeling, or construction for the Postal Service to purchase materials and supplies installed or placed in the project exempt from sales tax. The materials and supplies must be installed or place in the project and remain in the project after its completion. To purchase materials and supplies exempt from the tax, the contractor completes and provides a Contractor's Exempt Purchase Certificate to its vendors. CERT-141¹ is the current format, which was last updated in March, 2009. This form can remain in effect for up to three years. Contractors are considered the consumers of all the tools, supplies consumed, and equipment used in fulfilling a construction contract. As such, contractors must pay sales tax on the purchase of these items because they do not become incorporated or placed in the exempt job even if they are used up during the job.

¹ CERT-134 has been withdrawn and should no longer be used even though some state guidance materials still refer to this prior version of the exemption certificate.

PROPOSAL COST BREAKDOWN (FORM)

Attachment 10

Schedule of Values

Facility: Hartford, CT - P&DC/Switchgear Replacement

FSM Project Number: B43529

Contractor:

Date:

Item	Description of Work	Material	Labor	Total
Division 01	General Conditions			
1.1	Overhead			\$0.00
1.2	Profit			\$0.00
1.3	Bldg. Permits			\$0.00
1.4	Testing			\$0.00
1.5	Other			\$0.00
Division 02	Existing Conditions			
2.1	Demolition			\$0.00
Division 05	Metals			
5.1	Structural Steel			\$0.00
5.2	Misc. Metals			
5.3	Other			
Division 06	Wood, Plastics and Composites			
6.1	Carpentry			\$0.00
6.2	Other			\$0.00
Division 07	Thermal & Moisture Protection			
7.1	Roofing System			\$0.00
7.2	Sidewall			\$0.00
7.3	Shaft enclosures			\$0.00
Division 09	Finishes			
9.1	Painting			\$0.00
Division 13	Special Construction			
13.1	Fabricated Electrical House			\$0.00
Division 23	Heating Ventilating and Air Conditioning			
23.1	Ductwork			\$0.00
Division 25	Integrated Automation			
25.1	Building Automation System			\$0.00
Division 26	Electrical			
26.1	Electrical Power			\$0.00
26.2	Electrical Lighting			\$0.00
26.3	Structured Wiring			\$0.00
Division 28	Electronic Safety and Security			
28.1	Fire Alarm System			\$0.00
	Total	\$0.00	\$0.00	\$0.00

Switchgear Replacement

Hartford, CT - P&DC B43529/18034.00 USPS

013300 Attachment A - Page 1

Issued Date: 10/1/2017

SCHEDULE OF VALUES

**Proposal Instructions & Evaluation Criteria -
Technical Proposal**

Attachment 11

INSTRUCTIONS

INTRODUCTION

The Postal Service is interested in selecting the most highly qualified supplier for this contract. The information you provide in your Proposal Package will be the basis for the evaluation of your company. To ensure your Proposal is given full consideration, you must do the following:

- Read this solicitation carefully to make sure offeror understands what is required.
- Provide a complete Proposal Package in accordance with the instructions herein.
- ***Do not leave any portion of a form blank; indicate N/A if not applicable.***
- Provide information on the attached forms (or photocopies of the attached forms), and organize the information as set forth below.

Please note that all other records concerning the offeror's prior performance with the Postal Service will be used in the selection process.

A. PROPOSAL PACKAGE FORMAT

In furtherance of Provision 4-1: Standard Solicitation Provisions (September 2016), the offeror's proposal shall be in three (3) parts:

1. Part I – Technical Proposal (1 pdf file);
2. Part II – Price Proposal (1 pdf file); and
3. Part III - Schedule of Values (Excel Format)

The completed Proposal Package document(s) must be attached to the Solicitation event on the USPS eSourcing site, Emptoris. Tutorials on uploading attachments can be viewed under the Utilities feature on Emptoris. If you need technical assistance, please contact the Coupa Help Desk at esourcing@usps.gov. Submittals are due by 3:00 PM EST **March 17, 2022**.

The Technical Proposal and Price Proposal packages should be submitted as a **separate** files. Each of the parts shall be separate and complete in itself so that evaluation of one may be accomplished independently of and concurrently with evaluation of the other. Unnecessarily elaborate brochures, artwork, expensive visual and other presentation aids beyond that sufficient to present a complete and effective proposal are not desired and may be construed as an indication of the offeror's lack of cost consciousness. Proposals should be prepared with maximum economy, consistent with this particular procurement, to ensure that the resources of both the offeror and the USPS' evaluators are used efficiently.

Each submitted document should include your Company's Name in the document title, i.e. *ABC Co Technical Proposal.pdf* and *ABC Co Price Proposal.pdf*

Proposals will not be maintained or returned. Firms will not be reimbursed for any expense(s) incurred in developing their Proposal Package.

The proposal must fully comply with the requirements of the solicitation, including these Instructions, without exception to be considered responsive to the solicitation.

B. PROPOSAL RETURN PACKAGE

OFFEROR'S PROPOSAL RETURN PACKAGE shall consist of the following:

TECHNICAL PROPOSAL PACKAGE (Separate file)

1. Comparable Experience | Overall Industry Experience
2. Project Management | Construction Scheduling & Phasing
3. Key Personnel | Staffing Approach
4. Quality Assurance
5. Safety Narrative | EMR

PRICE PROPOSAL PACKAGE (Separate file)

1. Offer & Award page
2. Provision A-1: Restrictions on Disclosure and Use of Data (**If necessary**)
3. Provision 1-3, Domestic Source
4. Provision 4-1, Standard Solicitation Provisions
5. Provision 2-7, Brand Name or Equal
6. Provision 4-9, Acknowledgement of Solicitation Amendments (**if applicable**)
7. Provision F-202, Key Personnel
8. Provision 4-3, Representations and Certifications
9. Provision 9-1, Equal Opportunity Affirmative Action Program
10. Provision F-401, Authorized Negotiators
11. Schedule of Values (**submit in excel format - separate file**)
12. Construction Specifications: Section 012200 Part 1.5 Schedule of Unit Prices (**if applicable**)
13. Construction Specifications: Section 012300 Part 1.5 Schedule of Alternates (**if applicable**)
14. Pass/Fail Requirements:
 - Eligibility Requirements: Licenses & Proof of Years in Business (5yrs minimum)
 - Bonding Requirements
 - Financial Condition and Capability Requirements
15. VETS-4212 Federal Contractor Reporting – Email Confirmation of Filing Cycle 2021

Any Technical Proposal that scores an adjectival rating less than Good will not be considered for award.

EVALUATION

The offeror **MUST** provide a detailed response to each of the evaluation criteria in the order prescribed below:

I. Evaluation

Evaluation will be conducted in accordance with the Supplying Principles and Practices (SPs&Ps) section 2-26.2 Proposal Evaluation Strategy and Factors. Proposals that do not meet all the requirements of the specifications and drawings may be determined to be non-responsive to the solicitation.

II. Overall Relative Importance of Proposal Parts

Award will be made to the offeror whose proposal contains the combination of those factors offering the best overall value to the Postal Service. Best value will be determined by comparing differences in the value of technical and management features with differences in price to the Postal Service. The evaluation factors outlined in Section 17 will be used to evaluate proposals technically.

In making this comparison, the Postal Service is more concerned with obtaining superior technical and management features than with making an award at the lowest overall price. However, the Postal Service will not necessarily make an award at a significantly higher overall price to achieve slightly superior technical or management features. The Postal Service also will not necessarily make an award that offers lower technical and management features to achieve a slightly lower price.

III.

The USPS intends to make a **single** award to the contractor whose offer represents the best value to the USPS.

Below is the minimum information, which must be included in responsive Technical Proposals. Information to be furnished includes:

1. Table of Contents
2. Executive Summary
3. Offeror Responses to Construction Specifications, including all sections
4. Offeror Responses to Evaluation Criteria

A brief executive summary, not to exceed one page in length, is required at the beginning of the proposal.

THE SUMMARY SHOULD CONTAIN COMMENTS DESCRIBING THE OFFEROR'S COMMITMENT TO THE PROJECT AND WHETHER OR NOT THE OFFEROR ACCEPTS THE PROPOSED AGREEMENT, IT'S PROVISIONS AND CLAUSES, TERMS AND CONDITIONS, WORK REQUIREMENTS AND OTHER APPENDICES AS FOUND IN THIS SOLICITATION.

The summary should also include any information the offeror considers necessary to clarify any items included in the Technical Proposal such as assumptions made, interpretations of proposed agreement, etc.

Proposal Instructions and Evaluation Criteria

Offerors shall provide responses to the evaluation criteria listed herein. The USPS will use the technical evaluation criteria listed in this enclosure to evaluate the merit of the Technical Proposals.

A. PASS/FAIL FACTORS

Offerors will be required to submit documentation to support the following Pass/Fail factors.

1. Eligibility:

LICENSE(S)

Attach a copy of license(s) or certification(s) for this type of work, as required by the State named in this solicitation, or copy of application to obtain such license(s). If a license (or certification) for this type of work is not required in the State named in this solicitation, the contractor is to provide a statement indicating that this is not applicable.

YEARS IN BUSINESS

Minimum Years in Business: Company must show proof they have been in business under the company's present name for a minimum of five (5) consecutive years.
(Examples include Articles of Incorporation; Articles of LLC)

2. Bonding:

Attach a copy of a letter from one or more bonding companies stating the following:

- Firm bonding capacity (aggregate dollar amount)
- The amount of bonding outstanding
- How long the bonding company(s) has been providing bonds to your company
- The amount of working capital required to maintain the bonding capacity

Additionally, the bonding company must appear on the list contained in Treasury Department Circular 570. The amount of bond may not exceed the underwriting limit stated for the surety in that list. Do not submit the names of agents working on your behalf. Failure to make available any information in this section, or evidence of poor financial stability may result in Contractor disqualification.

3. Financial Condition and Capability:

Offeror's financial condition and capability will be evaluated to determine if adequate resources are available and committed for performance. During the evaluation, financial references may be requested and contacted to determine the Offeror's financial stability during past years. The adequacy of available working capital to facilitate performance under the contract will be evaluated.

The evaluation of this information will be to determine, on a "go, no go" basis, the financial health of an offering supplier, and to determine if there are foreseeable and knowable financial issues that would threaten or undermine the success of a given supplier should they be awarded a contract resulting from this solicitation, and ultimately to minimize the overall risk to the Postal Service.

Proposal Instructions and Evaluation Criteria

Demonstrated proof of financial stability will be determined by a review of the following documentation:

- Offeror's credit rating report obtained from one of the credit monitoring bureaus, e.g., Equifax, Experian, TransUnion, or Dun & Bradstreet; and
- Offeror shall provide a copy of a letter from its bank stating the following:
 - o Length of time the supplier has been doing business with the bank.
 - o Average monthly account balance (in general terms).
 - o Extent of credit available and terms of availability.
 - o The bank's rating of the supplier as a business customer.
 - o Name and telephone number and/or email address of individuals at the bank who can be contacted by Postal Service personnel for additional information.

B. TECHNICAL EVALUATION

The Postal Service will use technical evaluation criteria to evaluate the offeror's Technical Proposal. Each supplier will be required to submit a proposal that addresses Supplier Capability Factors and Past Performance Factors. The technical evaluation will focus on Factor No. 1 and Factor No. 2, and their sub-factors, whereas the price analysis will focus on the supplier's price proposal, which will be submitted separately from the technical proposal.

The Technical Proposal will be scored using the adjectival scoring matrix listed below. The Price Proposal will not be adjectivally rated. The Price Proposal will be judged on realistic costs and the evaluated cost to the USPS.

Technical Evaluation Factor Rating Definitions

Adjectival Rating	Rating Definition
Unsatisfactory	Proposal does not address the evaluation factor(s) or sub-factor(s) and poses an extremely high performance risk
Poor	Proposal does not clearly meet requirements and has not demonstrated an adequate approach or indicated an understanding of the requirements of the factor(s)/sub-factor(s). The proposal has one or more weaknesses which are not offset by strengths and pose a high or extremely high performance risk.
Fair	Proposal meets requirements and indicates an adequate approach and minimal understanding of the requirements of the factor(s)/sub-factor(s). Strengths and weaknesses are offsetting and may pose a moderate to high performance risk.
Good	Proposal meets requirements and indicates a thorough approach and complete understanding of the requirements of the factor(s)/sub-factor(s). Proposal contains strengths which outweigh any weaknesses and pose low to moderate performance risk.
Very Good	Proposal meets requirements and indicates a thorough approach and complete understanding of the requirements of the factor(s)/sub-factor(s) on a level that exceeds that which would be scored at as "Good". Strengths outweigh any weaknesses and pose a low performance risk.
Excellent	Proposal meets or exceeds requirements and indicates in extensive detail an exceptional approach and superior understanding of the requirements of the factor(s)/sub-factor(s). Strengths far outweigh any weaknesses and pose low performance risk.

Proposal Instructions and Evaluation Criteria

Technical Evaluation Factors:

1.0 Supplier Capability

- 1.1 Project Management, Construction Scheduling and Phasing
- 1.2 Key Personnel | Staffing Approach
- 1.3 Quality Assurance
- 1.4 Safety
 - 1.4.1 Safety EMR
 - 1.4.2 Safety Narrative

2.0 Past Performance

- 2.1 Overall Industry Experience
- 2.2 Comparable Projects

Importance of Technical Evaluation factors:

Factor 1 - Supplier Capability and Factor 2 - Past Performance are of equal importance.

Sub-factor 1.1 is more important than sub-factors 1.2 through 1.4. 1.2 through 1.3 are of equal importance, relative to each other, with sub-factor 1.4 being less important than sub-factors 1.1 through 1.3.

Within sub-factor 1.2 through 1.3, sub-components are of equal importance.

For Factor 2 – Past Performance, sub-factor 2.2 is slightly more important than sub-factor 2.1

Offerors are requested to use the format described hereafter for ease of review and minimization of repetition of presented material. **THE TECHNICAL PROPOSAL SHALL NOT CONTAIN ANY REFERENCE TO PRICE.** It must disclose your project approach in as much detail as possible including, but not limited to, the requirements of the Technical Proposal instructions. The Postal Service encourages Offerors to focus on a detailed technical approach specific to this effort rather than standard marketing language.

The Technical Proposal shall include information adequate to evaluate the proposed services against the requirements provided in the specifications and drawings and as described herein.

Factor No.	Instructions to Offerors
001	Supplier Capability
1.1	Program Management, Construction Scheduling and Phasing Narrative Project Management Describe in detail the overall approach to managing projects of this type, scale and complexity, specifically with respect to the protracted period of performance and multiple phases therein. Explain these processes in terms how they will be leveraged to ensure success with regard to this contract. Provide an overall project schedule indicating in moderate detail a critical path that achieves project completion within the stated period of performance. Indicate all required project phases

Proposal Instructions and Evaluation Criteria

	on that schedule. Provide a narrative describing the project phasing plan in detail, and how the offering firm proposes to integrate their subcontracting activities, major material acquisition strategies and phase transitions to achieve project completion with the stated period of performance. The base proposal shall adhere and conform to any and all schedule requirements, period of performance and phases outlined in the contract documents. Suppliers <i>may</i> offer alternate scheduling and phasing solutions for consideration; however, any such alternative shall be <i>in addition to</i> an offer based on the contract documents.
1.2	Key Personnel Staffing Approach Outline in an organizational chart personnel proposed as key to the success of this contract. Provide a narrative of the roles of those individuals. Provide up-to-date resumes for those individuals. Provide the same information for any organization that will receive a subcontract for more than 20 percent (estimate) of the work under this contract.
1.3	Quality Assurance Describe systems, processes and procedures to be used for quality management. Ensure the plan outlines processes the supplier has in place, or will put in place, for maintaining quality communications with the Postal Service, subcontractors and sub-suppliers, monitoring construction quality, processes to address lapses and deficiencies in construction performance quality, with respect to self-performed work and the work performed by subcontractors, inspection and testing procedures, acceptance and closeout procedures, including those related to providing required contract deliverables such as Operation and Maintenance Manuals, as well as all other aspects of maintain conformance with the project specifications and schedule
1.4	Safety 1.4.1 Provide evidence of your firm's current Experience Modification Ratio¹. 1.4.2 Safety Program Narrative Provide a description of the company procedures that will be implemented during the performance of any work: • Construction site safety meetings; • First aid treatment; • Reporting procedures; • Company-required safety apparel; • Construction site inspections; • Subcontractor safety program compliance requirements, and; • Firm enforcement procedures (i.e., disciplinary actions implemented after violations - specifically address "repeat violators", etc.). As this project is in an occupied building with a 24 hours per day, 7 days per week operation, provide in detail your firm's plan to protect the workforce, building, and equipment during construction.

¹ Experience Modification Rate (EMR) has strong impact upon a business. It is a number used by insurance companies to gauge both past cost of injuries and future chances of risk. The lower the EMR of your business, the lower your worker compensation insurance premiums will be.

Proposal Instructions and Evaluation Criteria

	Identify firm's full time safety person and include their resume. Include a copy of the firm's general Safety Program.
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Factor No.	Instructions to Offerors
002	Past Performance
2.1	Overall Industry Experience Include a narrative outlining the offering firms experience with projects of this type in the last several years. Include in the narrative information relating to the firms' overall body of work, record of on-time performance, record of cost control, record of controlling quality, and how a contract of this scale and magnitude fits into the broader business strategy of the firm. Include an explanation of how much work is typically self-performed and how much is typically subcontracted.
2.2	Comparable Projects A project will be considered comparable only if it meets the following criteria: 1. The project was completed within the last five (5) years. 2. The construction cost is a minimum of \$1,500,000 (one million five hundred thousand dollars). 3. The project was completed within the confines of the Connecticut Metropolitan area, or a similar urban environment that presents, or presented, similar challenges with respect to labor markets, municipal authorities and utility coordination, etc. Provide an applicable description as appropriate. 4. A description of the work is included that clearly demonstrates the relevance of that project to the requirements of this solicitation. 5. Include the level of effort involved in terms of performance, personnel (number of individuals and approximate hours), resources and price. 6. The project was in an occupied facility such as an occupied Postal Service facility, other occupied government facility, occupied commercial, industrial, or manufacturing facility. Quantity of Comparable Projects: Submit THREE (3) projects only. If fewer than three (3) projects are submitted, supplier may not receive maximum consideration. If more than three projects are submitted, only the first three (3) will be submitted to the Evaluation Team. Evaluation of Comparable Experience ▪ Example projects that closely match the scope, complexity, geography, and value of the solicitation project will receive a higher rating. ▪ Provide information and example projects that best illustrate your company's capability, experience and performance relative to the project being solicited. Photographs of projects are desirable, but not required. ▪ Provide current references (name, company name, telephone number and address) for your comparable projects. If the Evaluation Team is unable to contact the references listed to verify experience and performance, the overall score may be adversely affected. ▪ Projects not meeting all the criteria or missing project information may not receive full consideration.

Proposal Instructions and Evaluation Criteria

	Additionally, offerors are advised that the USPS may use other sources to inquire about an offeror's past performance as stated below: <i>The U.S. Postal Service (USPS) reserves the right to use past performance information obtained from sources other than those that may be identified by the offeror, e.g. information found in the government's Past Performance Information Retrieval System (PPIRS). This past performance information MAY be used for the evaluation of the Offeror's past performance. The USPS does not assume the duty to search for data to cure the problems it finds in the information provided by the Offeror or contained in other government repositories. The burden of providing thorough and complete past performance information remains with the Offeror.</i>
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C. PRICE EVALUATION

Price analysis will be conducted in accordance with the Postal Service Supplying Principles and Practices (SPs&Ps). The Postal Service expects to award one firm-fixed price construction contract as a result of this solicitation.

The Offeror shall submit a price proposal in a **separate document** marked **Confidential Price Proposal**. The price proposal shall be stated on the Offeror's signed Offer and Award Page. See OFFEROR'S PROPOSAL RETURN PACKAGE, above, for all sections required to be included in price proposal package.

D. PROPRIETARY DATA

Pursuant to Provision A-1: Restrictions on Disclosure and Use of Data, Offerors that include in their proposals data that they do not want used or disclosed by the Postal Service for any purpose other than proposal evaluation may take the following steps explained below.

If Offeror intends to use a product or process in which it has a proprietary or background patent position, please so indicate and list patent applications, patents granted, including dates, numbers, description, and whether or not the Government has rights in the patents. Offerors should indicate on the fore page, and all subsequent pages of their proposal, those sections, paragraphs, or areas which they consider being proprietary or otherwise considered confidential. The USPS assumes no liability for disclosure or use of unmarked data, and may use or disclose such data for any purpose. Unless restricted, information submitted in response to this RFP and subsequently used for procurement purposes may become subject to public disclosure pursuant to the provisions of the "Freedom of Information Act."

E. GENERAL INFORMATION

Explanation to Prospective Offerors

Any prospective offeror desiring an explanation or interpretation of the solicitation, work requirements, etc., must request it in writing via e-mail to Jennifer.Santiago@usps.gov by **15:00 PM Eastern Time, March 7, 2022**, to allow a reply to reach all prospective offerors before the submission of their offers. Oral explanations or instructions given before the award of the contract will not be binding.

Proposal Instructions and Evaluation Criteria

Any information given to a prospective offeror concerning a solicitation will be furnished promptly to all other prospective offerors as an amendment to the solicitation, if that information is necessary in submitting offers or if the lack of it would be prejudicial to any other prospective offerors.

Amendments to Solicitations

If this solicitation is amended, all terms and conditions that are not amended remain unchanged. Offerors shall acknowledge receipt of any amendment to this solicitation by the date and time specified in the amendment(s).

Proposals submitted in response to this solicitation shall be in English and in U.S. dollars, unless otherwise permitted by the solicitation.

Offerors may submit modifications to their proposals at any time before the solicitation closing date and time, and may submit modifications in response to an amendment, or to correct a mistake at any time before award.

Offerors may submit revised proposals only if requested or allowed by the USPS Contracting Officer.

Proposals may be withdrawn at any time before award. Withdrawals are effective upon receipt of notice by the Contracting Officer.

The USPS may evaluate proposals and award a contract without discussions with offerors. Therefore, the Offeror's initial proposal should contain the Offeror's best terms from a cost or price and technical standpoint. The USPS reserves the right to conduct discussions and require oral presentations if the Contracting Officer later determines them to be necessary.

If a cost analysis is performed, the USPS may consider cost realism in evaluating performance or schedule risk.

Offerors should be prepared to respond to requests by the Contracting Officer for oral presentations or written discussion, or both, facility surveys, and other information as may be necessary to assist in the detailed evaluation process.

The USPS may solicit, from available sources, experience data concerning an Offeror's past performance and will consider such information in its evaluation.

F. ACCEPTANCE PERIOD OF PROPOSALS

Offerors shall provide a statement that its proposal will remain open for acceptance for a period of **120 days** after the proposal due date.

SECTION 08: COMPARABLE EXPERIENCE**PROJECT No.: #1****Project Name:** _____

Contractor's office or branch that managed this project: _____

Project Location: _____

Project Size (SF): _____ Contract Completion Date: _____

Building Type:

☐ Industrial ☐ Manufacturing ☐ Commercial ☐ Retail ☐ Postal
☐ Government ☐ Other: _____

Contract Type:

☐ Fixed Price ☐ Design/Build ☐ Indefinite Quantity / JOC
☐ Other: _____

If example is a Federal or USPS project, provide:**Contract #** _____ **Project #** _____**Number of Contracts:**

☐ Single Prime ☐ Multiple Prime ☐ Other: _____

Contract Amount: Orig. Contract Amount: \$ _____

Final Contract Amount: \$ _____ % Change: _____

Contract Duration: Orig. Contract Duration: _____ Days

Final Contract Duration: _____ Days % Change: _____

If either Contract Amount or Duration increased by more than 5% attach an explanation.**Has this project received any awards (Construction, Quality, Safety or other)?:** ☐ No ☐ Yes

If yes, explain: _____

Client Reference for Construction: (It is your responsibility to assure that the telephone number and email address listed are correct. If your reference can not be contacted, this project may not be considered.)**Owner's Representative or Project Manager:** _____

Company Name _____

Address: _____

Telephone: _____

eMail: _____

**You must attach one additional sheet with a description of this project (or use the following page).
Clearly indicate the scope of work for which you were responsible.**

You may attach another sheet containing additional information and/or photographs.

Description / Scope of Work - Required

Project # 1

SECTION 08: COMPARABLE EXPERIENCE**PROJECT No.:#2****Project Name:** _____

Contractor's office or branch that managed this project: _____

Project Location: _____

Project Size (SF): _____ Contract Completion Date: _____

Building Type:

☐ Industrial ☐ Manufacturing ☐ Commercial ☐ Retail ☐ Postal
☐ Government ☐ Other: _____

Contract Type:

☐ Fixed Price ☐ Design/Build ☐ Indefinite Quantity / JOC
☐ Other: _____

If example is a Federal or USPS project, provide:**Contract #** _____ **Project #** _____**Number of Contracts:**

☐ Single Prime ☐ Multiple Prime ☐ Other: _____

Contract Amount: Orig. Contract Amount: \$ _____

Final Contract Amount: \$ _____ % Change: _____

Contract Duration: Orig. Contract Duration: _____ Days

Final Contract Duration: _____ Days % Change: _____

If either Contract Amount or Duration increased by more than 5% attach an explanation.**Has this project received any awards (Construction, Quality, Safety or other)?:** ☐ No ☐ Yes

If yes, explain: _____

Client Reference for Construction: (It is your responsibility to assure that the telephone number and email address listed are correct. If your reference can not be contacted, this project may not be considered.)**Owner's Representative or Project Manager:** _____

Company Name _____

Address: _____

Telephone: _____

eMail: _____

**You must attach one additional sheet with a description of this project (or use the following page).
Clearly indicate the scope of work for which you were responsible.**

You may attach another sheet containing additional information and/or photographs.

Description / Scope of Work - Required

Project # 2

SECTION 08: COMPARABLE EXPERIENCE**PROJECT No.: #3****Project Name:** _____

Contractor's office or branch that managed this project: _____

Project Location: _____

Project Size (SF): _____ Contract Completion Date: _____

Building Type:

☐ Industrial ☐ Manufacturing ☐ Commercial ☐ Retail ☐ Postal
☐ Government ☐ Other: _____

Contract Type:

☐ Fixed Price ☐ Design/Build ☐ Indefinite Quantity / JOC
☐ Other: _____

If example is a Federal or USPS project, provide:**Contract #** _____ **Project #** _____**Number of Contracts:**

☐ Single Prime ☐ Multiple Prime ☐ Other: _____

Contract Amount: Orig. Contract Amount: \$ _____

Final Contract Amount: \$ _____ % Change: _____

Contract Duration: Orig. Contract Duration: _____ Days

Final Contract Duration: _____ Days % Change: _____

If either Contract Amount or Duration increased by more than 5% attach an explanation.**Has this project received any awards (Construction, Quality, Safety or other)?:** ☐ No ☐ Yes

If yes, explain: _____

Client Reference for Construction: (It is your responsibility to assure that the telephone number and email address listed are correct. If your reference can not be contacted, this project may not be considered.)**Owner's Representative or Project Manager:** _____

Company Name _____

Address: _____

Telephone: _____

eMail: _____

**You must attach one additional sheet with a description of this project (or use the following page).
Clearly indicate the scope of work for which you were responsible.**

You may attach another sheet containing additional information and/or photographs.

Description / Scope of Work - Required

Project # 3

OFFERORS' PROPOSAL RETURN PACKAGE

Attachment 12



UNITED STATES POSTAL SERVICE
NORTHERN FACILITIES CONSTRUCTION CATEGORY MANAGEMENT TEAM

SOLICITATION # 089495-22-A-0023

PROJECT: Switchgear Replacement – Project # B43529
Hartford, CT – Hartford P&DC

SCHEDULE: Issue Date: February 15, 2022; Close Date: March 17, 2022 at 3:00 pm (15:00 EST)
Pre-Proposal Meeting: March 3, 2022 at 10:00am (local time), on site

INSTRUCTIONS TO PROSPECTIVE OFFERORS

Please ensure that you have read and understand the USPS Solicitation, Statement of Work (SOW) and all additional attachments. See all Attachments in the RFx event for details. All proposals must be submitted through Coupa USPS eSourcing. Closing date and time will not be extended due to operator inability in Coupa.

Complete and return the following forms via Coupa:

☐ **Technical Proposal Package: (Required – 1 pdf file)**

- ☐ Supplier Capability
- ☐ Past Performance

☐ **Price Proposal Package: (Required – 1 pdf file)**

- ☐ Signed Offer & Award;
- ☐ Schedule of Values; (**must be submitted separately in Excel format**)
- ☐ Schedule of Unit Prices; (**if applicable**)
- ☐ Schedule of Alternates; (**if applicable**)
- ☐ Affirmation of Contract Terms & Conditions (**Required**)
- ☐ Terms & Conditions: (**Required**)
 - ☐ Acknowledgement of Solicitation Amendments (**if applicable**)
 - ☐ Provision F-202: Key Personnel;
 - ☐ Provision 1-3: Domestic Source Certificate - Construction Materials;
 - ☐ Provision 4-3: Representations and Certifications;
 - ☐ Provision 9-1: Equal Opportunity Affirmative Action Program; and
 - ☐ Provision F-401: Authorized Negotiators.
 - ☐ VETS-4212 Federal Contractor Veterans' Employment Report: (**Required**)
 - ☐ Proof of annual registration. A copy of the confirmation email will be used as verification.
- ☐ Pass/Fail Requirements (**Required**):
 - ☐ Eligibility Requirements: Licenses; Proof of Years in Business
 - ☐ Bonding Requirements
 - ☐ Financial Condition and Capability Requirements

PROPOSALS MAY BE MODIFIED AT ANY TIME UP TO 3:00 P.M. ON THE DUE DATE IN COUPA
No bid bond is required. There will be no formal opening of the proposals for this project.

Contacts:	Jennifer Santiago, USPS Purchasing & SM Specialist, 860-285-7138
Solicitation/Contract Inquiries	Helen Hynes, USPS Contracting Officer, 860-285-7120
Technical Inquiries	Chris Defilippo, Project Architect-Engineer, McKinnell McKinnell & Taylor, (781) 878-6223 John Flynn, USPS Project Manager, (603) 665-7911.

Before the time of award, all Postal Service employees are prohibited from releasing any information to any person concerning the character, content, or number of proposals received by the Postal Service. At the time of award, all offerors will be provided with the award information.

Please be advised that the Davis Bacon Act (Clause 9-3) (March 2006) applies to this project specifically as it relates to the following; Minimum Wages, Apprentices and Trainees, Overtime Compensation, Payroll and Other Records, Withholding Of Funds, Subcontracts, Compliance with Davis-Bacon and Related Acts Requirements, Certification Of Eligibility, Contract Termination and Debarment, Disputes Concerning Labor Standards. If you require a more detailed explanation of the clause, the USPS will provide one.

INSTRUCTIONS

INTRODUCTION

The Postal Service is interested in selecting the most highly qualified supplier for this contract. The information you provide in your Proposal Package will be the basis for the evaluation of your company. To ensure your Proposal is given full consideration, you must do the following:

- Read this solicitation carefully to make sure offeror understands what is required.
- Provide a complete Proposal Package in accordance with the instructions herein.
- ***Do not leave any portion of a form blank; indicate N/A if not applicable.***
- Provide information on the attached forms (or photocopies of the attached forms), and organize the information as set forth below.

Please note that all other records concerning the offeror's prior performance with the Postal Service will be used in the selection process.

A. PROPOSAL PACKAGE FORMAT

In furtherance of Provision 4-1: Standard Solicitation Provisions (September 2016), the offeror's proposal shall be in three (3) parts:

1. Part I – Technical Proposal (1 pdf file);
2. Part II – Price Proposal (1 pdf file); and
3. Part III - Schedule of Values (Excel Format)

The completed Proposal Package document(s) must be attached to the Solicitation event on the USPS eSourcing site, Emptoris. Tutorials on uploading attachments can be viewed under the Utilities feature on Emptoris. If you need technical assistance, please contact the Coupa Help Desk at esourcing@usps.gov. Submittals are due by 3:00 PM EST **March 17, 2022**.

The Technical Proposal and Price Proposal packages should be submitted as a **separate** files. Each of the parts shall be separate and complete in itself so that evaluation of one may be accomplished independently of and concurrently with evaluation of the other. Unnecessarily elaborate brochures, artwork, expensive visual and other presentation aids beyond that sufficient to present a complete and effective proposal are not desired and may be construed as an indication of the offeror's lack of cost consciousness. Proposals should be prepared with maximum economy, consistent with this particular procurement, to ensure that the resources of both the offeror and the USPS' evaluators are used efficiently.

Each submitted document should include your Company's Name in the document title, i.e. *ABC Co Technical Proposal.pdf* and *ABC Co Price Proposal.pdf*

Proposals will not be maintained or returned. Firms will not be reimbursed for any expense(s) incurred in developing their Proposal Package.

The proposal must fully comply with the requirements of the solicitation, including these Instructions, without exception to be considered responsive to the solicitation.

B. PROPOSAL RETURN PACKAGE

OFFEROR'S PROPOSAL RETURN PACKAGE shall consist of the following:

TECHNICAL PROPOSAL PACKAGE (Separate file)

1. Comparable Experience | Overall Industry Experience
2. Project Management | Construction Scheduling & Phasing
3. Key Personnel | Staffing Approach
4. Quality Assurance
5. Safety Narrative | EMR

PRICE PROPOSAL PACKAGE (Separate file)

1. Offer & Award page
2. Provision A-1: Restrictions on Disclosure and Use of Data **(If necessary)**
3. Provision 1-3, Domestic Source
4. Provision 4-1, Standard Solicitation Provisions
5. Provision 2-7, Brand Name or Equal
6. Provision 4-9, Acknowledgement of Solicitation Amendments **(if applicable)**
7. Provision F-202, Key Personnel
8. Provision 4-3, Representations and Certifications
9. Provision 9-1, Equal Opportunity Affirmative Action Program
10. Provision F-401, Authorized Negotiators
11. Schedule of Values **(submit in excel format - separate file)**
12. Construction Specifications: Section 012200 Part 1.5 Schedule of Unit Prices **(if applicable)**
13. Construction Specifications: Section 012300 Part 1.5 Schedule of Alternates **(if applicable)**
14. Pass/Fail Requirements:
 - Eligibility Requirements: Licenses & Proof of Years in Business (5yrs minimum)
 - Bonding Requirements
 - Financial Condition and Capability Requirements
15. VETS-4212 Federal Contractor Reporting – Email Confirmation of Filing Cycle 2021

Any Technical Proposal that scores an adjectival rating less than Good will not be considered for award.

EVALUATION

The offeror **MUST** provide a detailed response to each of the evaluation criteria in the order prescribed below:

I. Evaluation

Evaluation will be conducted in accordance with the Supplying Principles and Practices (SPs&Ps) section 2-26.2 Proposal Evaluation Strategy and Factors. Proposals that do not meet all the requirements of the specifications and drawings may be determined to be non-responsive to the solicitation.

II. Overall Relative Importance of Proposal Parts

Award will be made to the offeror whose proposal contains the combination of those factors offering the best overall value to the Postal Service. Best value will be determined by comparing differences in the value of technical and management features with differences in price to the Postal Service. The evaluation factors outlined in Section 17 will be used to evaluate proposals technically.

In making this comparison, the Postal Service is more concerned with obtaining superior technical and management features than with making an award at the lowest overall price. However, the Postal Service will not necessarily make an award at a significantly higher overall price to achieve slightly superior technical or management features. The Postal Service also will not necessarily make an award that offers lower technical and management features to achieve a slightly lower price.

III.

The USPS intends to make a **single** award to the contractor whose offer represents the best value to the USPS.

Below is the minimum information, which must be included in responsive Technical Proposals. Information to be furnished includes:

1. Table of Contents
2. Executive Summary
3. Offeror Responses to Construction Specifications, including all sections
4. Offeror Responses to Evaluation Criteria

A brief executive summary, not to exceed one page in length, is required at the beginning of the proposal.

THE SUMMARY SHOULD CONTAIN COMMENTS DESCRIBING THE OFFEROR'S COMMITMENT TO THE PROJECT AND WHETHER OR NOT THE OFFEROR ACCEPTS THE PROPOSED AGREEMENT, IT'S PROVISIONS AND CLAUSES, TERMS AND CONDITIONS, WORK REQUIREMENTS AND OTHER APPENDICES AS FOUND IN THIS SOLICITATION.

The summary should also include any information the offeror considers necessary to clarify any items included in the Technical Proposal such as assumptions made, interpretations of proposed agreement, etc.

Proposal Instructions and Evaluation Criteria

Offerors shall provide responses to the evaluation criteria listed herein. The USPS will use the technical evaluation criteria listed in this enclosure to evaluate the merit of the Technical Proposals.

A. PASS/FAIL FACTORS

Offerors will be required to submit documentation to support the following Pass/Fail factors.

1. Eligibility:

LICENSE(S)

Attach a copy of license(s) or certification(s) for this type of work, as required by the State named in this solicitation, or copy of application to obtain such license(s). If a license (or certification) for this type of work is not required in the State named in this solicitation, the contractor is to provide a statement indicating that this is not applicable.

YEARS IN BUSINESS

Minimum Years in Business: Company must show proof they have been in business under the company's present name for a minimum of five (5) consecutive years.
(Examples include Articles of Incorporation; Articles of LLC)

2. Bonding:

Attach a copy of a letter from one or more bonding companies stating the following:

- Firm bonding capacity (aggregate dollar amount)
- The amount of bonding outstanding
- How long the bonding company(s) has been providing bonds to your company
- The amount of working capital required to maintain the bonding capacity

Additionally, the bonding company must appear on the list contained in Treasury Department Circular 570. The amount of bond may not exceed the underwriting limit stated for the surety in that list. Do not submit the names of agents working on your behalf. Failure to make available any information in this section, or evidence of poor financial stability may result in Contractor disqualification.

3. Financial Condition and Capability:

Offeror's financial condition and capability will be evaluated to determine if adequate resources are available and committed for performance. During the evaluation, financial references may be requested and contacted to determine the Offeror's financial stability during past years. The adequacy of available working capital to facilitate performance under the contract will be evaluated.

The evaluation of this information will be to determine, on a "go, no go" basis, the financial health of an offering supplier, and to determine if there are foreseeable and knowable financial issues that would threaten or undermine the success of a given supplier should they be awarded a contract resulting from this solicitation, and ultimately to minimize the overall risk to the Postal Service.

Proposal Instructions and Evaluation Criteria

Demonstrated proof of financial stability will be determined by a review of the following documentation:

- Offeror's credit rating report obtained from one of the credit monitoring bureaus, e.g., Equifax, Experian, TransUnion, or Dun & Bradstreet; and
- Offeror shall provide a copy of a letter from its bank stating the following:
 - o Length of time the supplier has been doing business with the bank.
 - o Average monthly account balance (in general terms).
 - o Extent of credit available and terms of availability.
 - o The bank's rating of the supplier as a business customer.
 - o Name and telephone number and/or email address of individuals at the bank who can be contacted by Postal Service personnel for additional information.

B. TECHNICAL EVALUATION

The Postal Service will use technical evaluation criteria to evaluate the offeror's Technical Proposal. Each supplier will be required to submit a proposal that addresses Supplier Capability Factors and Past Performance Factors. The technical evaluation will focus on Factor No. 1 and Factor No. 2, and their sub-factors, whereas the price analysis will focus on the supplier's price proposal, which will be submitted separately from the technical proposal.

The Technical Proposal will be scored using the adjectival scoring matrix listed below. The Price Proposal will not be adjectivally rated. The Price Proposal will be judged on realistic costs and the evaluated cost to the USPS.

Technical Evaluation Factor Rating Definitions

Adjectival Rating	Rating Definition
Unsatisfactory	Proposal does not address the evaluation factor(s) or sub-factor(s) and poses an extremely high performance risk
Poor	Proposal does not clearly meet requirements and has not demonstrated an adequate approach or indicated an understanding of the requirements of the factor(s)/sub-factor(s). The proposal has one or more weaknesses which are not offset by strengths and pose a high or extremely high performance risk.
Fair	Proposal meets requirements and indicates an adequate approach and minimal understanding of the requirements of the factor(s)/sub-factor(s). Strengths and weaknesses are offsetting and may pose a moderate to high performance risk.
Good	Proposal meets requirements and indicates a thorough approach and complete understanding of the requirements of the factor(s)/sub-factor(s). Proposal contains strengths which outweigh any weaknesses and pose low to moderate performance risk.
Very Good	Proposal meets requirements and indicates a thorough approach and complete understanding of the requirements of the factor(s)/sub-factor(s) on a level that exceeds that which would be scored at as "Good". Strengths outweigh any weaknesses and pose a low performance risk.
Excellent	Proposal meets or exceeds requirements and indicates in extensive detail an exceptional approach and superior understanding of the requirements of the factor(s)/sub-factor(s). Strengths far outweigh any weaknesses and pose low performance risk.

Proposal Instructions and Evaluation Criteria

Technical Evaluation Factors:

1.0 Supplier Capability

- 1.1 Project Management, Construction Scheduling and Phasing
- 1.2 Key Personnel | Staffing Approach
- 1.3 Quality Assurance
- 1.4 Safety
 - 1.4.1 Safety EMR
 - 1.4.2 Safety Narrative

2.0 Past Performance

- 2.1 Overall Industry Experience
- 2.2 Comparable Projects

Importance of Technical Evaluation factors:

Factor 1 - Supplier Capability and Factor 2 - Past Performance are of equal importance.

Sub-factor 1.1 is more important than sub-factors 1.2 through 1.4. 1.2 through 1.3 are of equal importance, relative to each other, with sub-factor 1.4 being less important than sub-factors 1.1 through 1.3.

Within sub-factor 1.2 through 1.3, sub-components are of equal importance.

For Factor 2 – Past Performance, sub-factor 2.2 is slightly more important than sub-factor 2.1

Offerors are requested to use the format described hereafter for ease of review and minimization of repetition of presented material. **THE TECHNICAL PROPOSAL SHALL NOT CONTAIN ANY REFERENCE TO PRICE.** It must disclose your project approach in as much detail as possible including, but not limited to, the requirements of the Technical Proposal instructions. The Postal Service encourages Offerors to focus on a detailed technical approach specific to this effort rather than standard marketing language.

The Technical Proposal shall include information adequate to evaluate the proposed services against the requirements provided in the specifications and drawings and as described herein.

Factor No.	Instructions to Offerors
001	Supplier Capability
1.1	Program Management, Construction Scheduling and Phasing Narrative Project Management Describe in detail the overall approach to managing projects of this type, scale and complexity, specifically with respect to the protracted period of performance and multiple phases therein. Explain these processes in terms how they will be leveraged to ensure success with regard to this contract. Provide an overall project schedule indicating in moderate detail a critical path that achieves project completion within the stated period of performance. Indicate all required project phases

Proposal Instructions and Evaluation Criteria

	on that schedule. Provide a narrative describing the project phasing plan in detail, and how the offering firm proposes to integrate their subcontracting activities, major material acquisition strategies and phase transitions to achieve project completion with the stated period of performance. The base proposal shall adhere and conform to any and all schedule requirements, period of performance and phases outlined in the contract documents. Suppliers <i>may</i> offer alternate scheduling and phasing solutions for consideration; however, any such alternative shall be <i>in addition to</i> an offer based on the contract documents.
1.2	Key Personnel Staffing Approach Outline in an organizational chart personnel proposed as key to the success of this contract. Provide a narrative of the roles of those individuals. Provide up-to-date resumes for those individuals. Provide the same information for any organization that will receive a subcontract for more than 20 percent (estimate) of the work under this contract.
1.3	Quality Assurance Describe systems, processes and procedures to be used for quality management. Ensure the plan outlines processes the supplier has in place, or will put in place, for maintaining quality communications with the Postal Service, subcontractors and sub-suppliers, monitoring construction quality, processes to address lapses and deficiencies in construction performance quality, with respect to self-performed work and the work performed by subcontractors, inspection and testing procedures, acceptance and closeout procedures, including those related to providing required contract deliverables such as Operation and Maintenance Manuals, as well as all other aspects of maintain conformance with the project specifications and schedule
1.4	Safety 1.4.1 Provide evidence of your firm's current Experience Modification Ratio¹. 1.4.2 Safety Program Narrative Provide a description of the company procedures that will be implemented during the performance of any work: • Construction site safety meetings; • First aid treatment; • Reporting procedures; • Company-required safety apparel; • Construction site inspections; • Subcontractor safety program compliance requirements, and; • Firm enforcement procedures (i.e., disciplinary actions implemented after violations - specifically address "repeat violators", etc.). As this project is in an occupied building with a 24 hours per day, 7 days per week operation, provide in detail your firm's plan to protect the workforce, building, and equipment during construction.

¹ Experience Modification Rate (EMR) has strong impact upon a business. It is a number used by insurance companies to gauge both past cost of injuries and future chances of risk. The lower the EMR of your business, the lower your worker compensation insurance premiums will be.

Proposal Instructions and Evaluation Criteria

	Identify firm's full time safety person and include their resume. Include a copy of the firm's general Safety Program.
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Factor No.	Instructions to Offerors
002	Past Performance
2.1	Overall Industry Experience Include a narrative outlining the offering firms experience with projects of this type in the last several years. Include in the narrative information relating to the firms' overall body of work, record of on-time performance, record of cost control, record of controlling quality, and how a contract of this scale and magnitude fits into the broader business strategy of the firm. Include an explanation of how much work is typically self-performed and how much is typically subcontracted.
2.2	Comparable Projects A project will be considered comparable only if it meets the following criteria: 1. The project was completed within the last five (5) years. 2. The construction cost is a minimum of \$1,500,000 (one million five hundred thousand dollars). 3. The project was completed within the confines of the Connecticut Metropolitan area, or a similar urban environment that presents, or presented, similar challenges with respect to labor markets, municipal authorities and utility coordination, etc. Provide an applicable description as appropriate. 4. A description of the work is included that clearly demonstrates the relevance of that project to the requirements of this solicitation. 5. Include the level of effort involved in terms of performance, personnel (number of individuals and approximate hours), resources and price. 6. The project was in an occupied facility such as an occupied Postal Service facility, other occupied government facility, occupied commercial, industrial, or manufacturing facility. Quantity of Comparable Projects: Submit THREE (3) projects only. If fewer than three (3) projects are submitted, supplier may not receive maximum consideration. If more than three projects are submitted, only the first three (3) will be submitted to the Evaluation Team. Evaluation of Comparable Experience ▪ Example projects that closely match the scope, complexity, geography, and value of the solicitation project will receive a higher rating. ▪ Provide information and example projects that best illustrate your company's capability, experience and performance relative to the project being solicited. Photographs of projects are desirable, but not required. ▪ Provide current references (name, company name, telephone number and address) for your comparable projects. If the Evaluation Team is unable to contact the references listed to verify experience and performance, the overall score may be adversely affected. ▪ Projects not meeting all the criteria or missing project information may not receive full consideration.

Proposal Instructions and Evaluation Criteria

	Additionally, offerors are advised that the USPS may use other sources to inquire about an offeror's past performance as stated below: <i>The U.S. Postal Service (USPS) reserves the right to use past performance information obtained from sources other than those that may be identified by the offeror, e.g. information found in the government's Past Performance Information Retrieval System (PPIRS). This past performance information MAY be used for the evaluation of the Offeror's past performance. The USPS does not assume the duty to search for data to cure the problems it finds in the information provided by the Offeror or contained in other government repositories. The burden of providing thorough and complete past performance information remains with the Offeror.</i>
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C. PRICE EVALUATION

Price analysis will be conducted in accordance with the Postal Service Supplying Principles and Practices (SPs&Ps). The Postal Service expects to award one firm-fixed price construction contract as a result of this solicitation.

The Offeror shall submit a price proposal in a **separate document** marked **Confidential Price Proposal**. The price proposal shall be stated on the Offeror's signed Offer and Award Page. See OFFEROR'S PROPOSAL RETURN PACKAGE, above, for all sections required to be included in price proposal package.

D. PROPRIETARY DATA

Pursuant to Provision A-1: Restrictions on Disclosure and Use of Data, Offerors that include in their proposals data that they do not want used or disclosed by the Postal Service for any purpose other than proposal evaluation may take the following steps explained below.

If Offeror intends to use a product or process in which it has a proprietary or background patent position, please so indicate and list patent applications, patents granted, including dates, numbers, description, and whether or not the Government has rights in the patents. Offerors should indicate on the fore page, and all subsequent pages of their proposal, those sections, paragraphs, or areas which they consider being proprietary or otherwise considered confidential. The USPS assumes no liability for disclosure or use of unmarked data, and may use or disclose such data for any purpose. Unless restricted, information submitted in response to this RFP and subsequently used for procurement purposes may become subject to public disclosure pursuant to the provisions of the "Freedom of Information Act."

E. GENERAL INFORMATION

Explanation to Prospective Offerors

Any prospective offeror desiring an explanation or interpretation of the solicitation, work requirements, etc., must request it in writing via e-mail to Jennifer.Santiago@usps.gov by **15:00 PM Eastern Time, March 7, 2022**, to allow a reply to reach all prospective offerors before the submission of their offers. Oral explanations or instructions given before the award of the contract will not be binding.

Proposal Instructions and Evaluation Criteria

Any information given to a prospective offeror concerning a solicitation will be furnished promptly to all other prospective offerors as an amendment to the solicitation, if that information is necessary in submitting offers or if the lack of it would be prejudicial to any other prospective offerors.

Amendments to Solicitations

If this solicitation is amended, all terms and conditions that are not amended remain unchanged. Offerors shall acknowledge receipt of any amendment to this solicitation by the date and time specified in the amendment(s).

Proposals submitted in response to this solicitation shall be in English and in U.S. dollars, unless otherwise permitted by the solicitation.

Offerors may submit modifications to their proposals at any time before the solicitation closing date and time, and may submit modifications in response to an amendment, or to correct a mistake at any time before award.

Offerors may submit revised proposals only if requested or allowed by the USPS Contracting Officer.

Proposals may be withdrawn at any time before award. Withdrawals are effective upon receipt of notice by the Contracting Officer.

The USPS may evaluate proposals and award a contract without discussions with offerors. Therefore, the Offeror's initial proposal should contain the Offeror's best terms from a cost or price and technical standpoint. The USPS reserves the right to conduct discussions and require oral presentations if the Contracting Officer later determines them to be necessary.

If a cost analysis is performed, the USPS may consider cost realism in evaluating performance or schedule risk.

Offerors should be prepared to respond to requests by the Contracting Officer for oral presentations or written discussion, or both, facility surveys, and other information as may be necessary to assist in the detailed evaluation process.

The USPS may solicit, from available sources, experience data concerning an Offeror's past performance and will consider such information in its evaluation.

F. ACCEPTANCE PERIOD OF PROPOSALS

Offerors shall provide a statement that its proposal will remain open for acceptance for a period of **120 days** after the proposal due date.

SECTION 08: COMPARABLE EXPERIENCE**PROJECT No.: #1****Project Name:** _____

Contractor's office or branch that managed this project: _____

Project Location: _____

Project Size (SF): _____ Contract Completion Date: _____

Building Type:

☐ Industrial ☐ Manufacturing ☐ Commercial ☐ Retail ☐ Postal
☐ Government ☐ Other: _____

Contract Type:

☐ Fixed Price ☐ Design/Build ☐ Indefinite Quantity / JOC
☐ Other: _____

If example is a Federal or USPS project, provide:**Contract #** _____ **Project #** _____**Number of Contracts:**

☐ Single Prime ☐ Multiple Prime ☐ Other: _____

Contract Amount: Orig. Contract Amount: \$ _____

Final Contract Amount: \$ _____ % Change: _____

Contract Duration: Orig. Contract Duration: _____ Days

Final Contract Duration: _____ Days % Change: _____

If either Contract Amount or Duration increased by more than 5% attach an explanation.**Has this project received any awards (Construction, Quality, Safety or other)?:** ☐ No ☐ Yes

If yes, explain: _____

Client Reference for Construction: (It is your responsibility to assure that the telephone number and email address listed are correct. If your reference can not be contacted, this project may not be considered.)**Owner's Representative or Project Manager:** _____

Company Name _____

Address: _____

Telephone: _____

eMail: _____

**You must attach one additional sheet with a description of this project (or use the following page).
Clearly indicate the scope of work for which you were responsible.**

You may attach another sheet containing additional information and/or photographs.

Description / Scope of Work - Required

Project # 1

SECTION 08: COMPARABLE EXPERIENCE

PROJECT No.:#2

Project Name: _____

Contractor's office or branch that managed this project: _____

Project Location: _____

Project Size (SF): _____ Contract Completion Date: _____

Building Type:

☐ Industrial ☐ Manufacturing ☐ Commercial ☐ Retail ☐ Postal
☐ Government ☐ Other: _____

Contract Type:

☐ Fixed Price ☐ Design/Build ☐ Indefinite Quantity / JOC
☐ Other: _____

If example is a Federal or USPS project, provide:

Contract # _____ **Project #** _____

Number of Contracts:

☐ Single Prime ☐ Multiple Prime ☐ Other: _____

Contract Amount: Orig. Contract Amount: \$ _____

Final Contract Amount: \$ _____ % Change: _____

Contract Duration: Orig. Contract Duration: _____ Days

Final Contract Duration: _____ Days % Change: _____

If either Contract Amount or Duration increased by more than 5% attach an explanation.

Has this project received any awards (Construction, Quality, Safety or other)?: ☐ No ☐ Yes

If yes, explain: _____

Client Reference for Construction: (It is your responsibility to assure that the telephone number and email address listed are correct. If your reference can not be contacted, this project may not be considered.)

Owner's Representative or Project Manager: _____

Company Name _____

Address: _____

Telephone: _____

eMail: _____

You must attach one additional sheet with a description of this project (or use the following page). Clearly indicate the scope of work for which you were responsible.

You may attach another sheet containing additional information and/or photographs.

Description / Scope of Work - Required

Project # 2

SECTION 08: COMPARABLE EXPERIENCE**PROJECT No.: #3****Project Name:** _____

Contractor's office or branch that managed this project: _____

Project Location: _____

Project Size (SF): _____ Contract Completion Date: _____

Building Type:

☐ Industrial ☐ Manufacturing ☐ Commercial ☐ Retail ☐ Postal
☐ Government ☐ Other: _____

Contract Type:

☐ Fixed Price ☐ Design/Build ☐ Indefinite Quantity / JOC
☐ Other: _____

If example is a Federal or USPS project, provide:**Contract #** _____ **Project #** _____**Number of Contracts:**

☐ Single Prime ☐ Multiple Prime ☐ Other: _____

Contract Amount: Orig. Contract Amount: \$ _____

Final Contract Amount: \$ _____ % Change: _____

Contract Duration: Orig. Contract Duration: _____ Days

Final Contract Duration: _____ Days % Change: _____

If either Contract Amount or Duration increased by more than 5% attach an explanation.**Has this project received any awards (Construction, Quality, Safety or other)?:** ☐ No ☐ Yes

If yes, explain: _____

Client Reference for Construction: (It is your responsibility to assure that the telephone number and email address listed are correct. If your reference can not be contacted, this project may not be considered.)**Owner's Representative or Project Manager:** _____

Company Name _____

Address: _____

Telephone: _____

eMail: _____

**You must attach one additional sheet with a description of this project (or use the following page).
Clearly indicate the scope of work for which you were responsible.**

You may attach another sheet containing additional information and/or photographs.

Description / Scope of Work - Required

Project # 3



Offer and Award Fixed Price Construction

Facility HARTFORD, CT - P&DC 141 Weston Street Hartford, CT 06101-9612		Project Switchgear Replacement	
1. Contract Number	2. Solicitation Number 089495-22-A-0023	3. Project # B43529	4. Socio/Economic
5.a. Issued by REPAIR AND ALTERATION EAST 6 GRIFFIN RD N WINDSOR, CT 06095-1666	5.b. For Information call (<i>No Collect Calls</i>) JOHN E FLYNN III 860-752-9427 phone / 860-285-7177 fax JFlynn153@Gmail.com		
6.a. Offeror/Contractor ,	b. Contact Name: c. Telephone No: d. Fax Number: e. Email Address f. TIN: g. Parent TIN Location:		
	TIN = Taxpayer Identification Number		
h. Remittance Name and/or Address: (if different from above)			
7. Delivery/Performance Requirements See Section B			
8. Items & Prices/General Description Requirement Switchgear Replacement project for USPS Hartford P&DC, 141 Weston Street, Hartford, CT 06101-9613, Hartford County. All construction documents have been reviewed and the base price as submitted is correct. The project will be completed in accordance with the specifications, drawings, and other data included in the solicitation.			
Total: \$ _____ in words _____ Performance Time in Calendar Days: 280			
9. Optional Provisions/Clauses listed below are applicable to this contract: B-44 Use of Premises B-59 Construction Progress Chart F-304 Scheduling and Security Requirements F-403 Protection and Damage End of list of clauses incorporated by reference			
10. Billing Instructions (Submit Invoices To) JOHN E FLYNN III 104 Chestnut Hill Rd.		Amherst, NH 03031-1519	
11. Contractor Signature:	Date:	12. US Postal Service Signature	Date:
Name of Person Authorized to sign		Name of Contracting Officer HELEN L HYNES	

Schedule of Values

Facility: Hartford, CT - P&DC/Switchgear Replacement

FSM Project Number: B43529

Contractor:

Date:

Item	Description of Work	Material	Labor	Total
Division 01	General Conditions			
1.1	Overhead			\$0.00
1.2	Profit			\$0.00
1.3	Bldg. Permits			\$0.00
1.4	Testing			\$0.00
1.5	Other			\$0.00
Division 02	Existing Conditions			
2.1	Demolition			\$0.00
Division 05	Metals			
5.1	Structural Steel			\$0.00
5.2	Misc. Metals			
5.3	Other			
Division 06	Wood, Plastics and Composites			
6.1	Carpentry			\$0.00
6.2	Other			\$0.00
Division 07	Thermal & Moisture Protection			
7.1	Roofing System			\$0.00
7.2	Sidewall			\$0.00
7.3	Shaft enclosures			\$0.00
Division 09	Finishes			
9.1	Painting			\$0.00
Division 13	Special Construction			
13.1	Fabricated Electrical House			\$0.00
Division 23	Heating Ventilating and Air Conditioning			
23.1	Ductwork			\$0.00
Division 25	Integrated Automation			
25.1	Building Automation System			\$0.00
Division 26	Electrical			
26.1	Electrical Power			\$0.00
26.2	Electrical Lighting			\$0.00
26.3	Structured Wiring			\$0.00
Division 28	Electronic Safety and Security			
28.1	Fire Alarm System			\$0.00
	Total	\$0.00	\$0.00	\$0.00

Switchgear Replacement

Hartford, CT - P&DC B43529/18034.00 USPS

013300 Attachment A - Page 1

Issued Date: 10/1/2017

SCHEDULE OF VALUES

**Affirmation of Contract Terms and Conditions**

Supplier Name _____

Supplier Address _____

Supplier City, ST ZIP+4 _____

Re: Solicitation No. 089495-22-A-0023
Project Location – Hartford, CT - P&DC
Project Description – Switchgear Replacement

I, _____, on behalf of _____, do hereby
affirm the following as related to the above-referenced solicitation and related offer submission:

- The price offered submitted is complete and inclusive of all costs known by us to be associated with the Scope of Work as outlined in the solicitation;
- All known discrepancies, omissions and/or conflicts known to us within the solicitation that might have implications of cost and/or schedule have been made known to the Contracting Officer by us in writing;
- The contract period of performance stated in the solicitation has been reviewed and taken into account fully in the formation of our offer and, if awarded a contract resulting from this solicitation, we will accept the period of performance and will perform diligently in the pursuit of work completion within the stated period of performance;
- All subcontractors, sub-suppliers, manufacturing entities, and other resources to be contracted by us related to the formation of our offer have been made fully aware of the contract period of performance, and all such entities are prepared to perform in a manner conducive to the completion of the work within the prescribed period of performance;
- To the best of our knowledge, the solicitation requirements are achievable as stated for the price offered herein.

Signature of Authorized Representative_____
Date Signed_____
Name of Authorized Representative_____
Company Title of Authorized Representative



Offerors that include in their proposals data they do not want used or disclosed by the Postal Service for any purpose other than proposal evaluation may take the following steps:

a. Include on the title page or in the introductory material of their proposal the following: "This proposal includes data that may not be duplicated, used, or disclosed outside the Postal Service – in whole or in part – for any purpose other than to evaluate this proposal. If, however, a contract is awarded to this offeror as a result of – or in connection with – the submission of such data, the Postal Service will have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Postal Service's right to use information contained in the data if it is obtained from another source without restriction. The data subject to this restriction are contained in sheets (Offeror insert numbers or other identification of sheets)."

b. Mark each sheet of data they wish to restrict with the following legend: "Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal."

F-PROVISION F-201: Prequalified/Non-Prequalified Contractors (March 2006)

a. Prequalified or non-prequalified contractors must submit a Prequalification Package, Management or Technical Plan, or other documents requested by the Contracting Officer under this solicitation.

b. Prequalified Contractors: If entities or contractors have already been prequalified, the Postal Service will consider *only* proposals from those entities or contractors currently on the prequalified list as of the date of this solicitation.

F-PROVISION F-202: Key Personnel (March 2006)

a. The contractor must assign to this contract the personnel named in the offeror's proposal for the following key positions:

	NAME	Title/Position	Phone #
1			
2			
3			
4			
5			
6			

F-PROVISION F-203: Submission of Financial Statements (March 2006)

If not already prequalified, or if prequalified, then at the request of the Contracting Officer, the offeror must submit the required financial statements with its Technical or Technical and Management Proposal. For the purposes of this provision, the term "required financial statement" is defined as the data which includes both the audited Balance Sheet and audited Income Statement covering each of the offeror's immediate past two fiscal years together with an interim report to as near the submission date as possible. These guidelines are to be observed:

a. Statements shall be prepared in accordance with "Generally Accepted Accounting Principles."

b. Statement shall include all required Notes to the Financial Statements.

c. Fiscal Year statements must be certified by an opinion statement on the fairness of the presentation after a review by independent auditors.

d. The most recent financial statement, if not a Fiscal Year statement, must be certified by either a company officer as to accuracy and veracity, or by an opinion statement on the fairness of the presentation after review by independent auditors.

e. The Income Statements must incorporate or have attached "Schedule of Cost of Goods Sold." This schedule must reflect Direct Materials, Direct Labor, and Overhead used to compute the amount of cost of goods sold.

It may become necessary for the offeror to submit additional financial information prior to award.

Financial information received will be treated as confidential and will not be used for purposes other than evaluation of financial responsibility.

F-PROVISION F-204: Construction Cost Breakdown (March 2006)

When required by the Contracting Officer, the offeror must submit with its proposal a construction cost breakdown using the sample forms provided in Section B-1500 - Attachments.



EVALUATION AND AWARD

PROVISION 4-2: Evaluation (October 2019)

a. General. The Postal Service will award a contract resulting from this solicitation to the offeror whose offer conforming to the solicitation is deemed to offer the Postal Service the best value, price and other factors, as specified, considered. The following evaluation factors will be used in the evaluation of offers:

(Contracting officer insert the proposal-specific and supplier-specific evaluation factors and indicate their relative importance. In addition, state, in accordance with the Postal Service Supplying Principles and Practices section 2-26, Develop Proposal Evaluation Strategy, the relative importance of the evaluation factors as compared to price.)

b. Options. The Postal Service will ___ will not ___ evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirement. The Postal Service may determine that an offer is unacceptable if the option prices are significantly unbalanced. Evaluation of options will not obligate the Postal Service to exercise the option(s).

c. Notice of Award. The Postal Service may accept an offer (or part of an offer), whether or not there are discussions after its receipt, before an offer's specified expiration time, unless a written notice of withdrawal is received before award. A written notice of award or acceptance of an offer, mailed or otherwise furnished to the successful offeror within the time for acceptance specified in the offer, will result in a binding contract without further action by either party.

F-PROVISION F-301: Contract Award and Proposal Evaluation (March 2006)

a. Evaluation

1. If required by the Contracting Officer all Technical, Management Plans and/or Qualification Statement Packages (QSP) will be evaluated by the Contracting Officer or his/her designated representative(s). The Technical, Management Plans and/or QSPs will be evaluated to ensure that the services and personnel to be provided by the offeror are adequate to ensure the proper execution of this contract.
1. Proposals will be evaluated using proposal-specific technical factors price proposals. The prices will be evaluated to determine that they are fair and reasonable. If it is determined that any technical or price component requires clarification, discussions may be held with any offeror to obtain such clarifications. If and when discussions are conducted with an offeror(s) they will be provided a reasonable time to revise their proposal, if applicable. Offeror(s) whose Technical, Management Plan, QSP and/or price proposal are determined to be unacceptable (incomplete, unreasonable costs, high or low, and with no opportunity to receive contract award) may be eliminated from further consideration. Oral presentations may be required. If required, those offeror's will be notified.

b. Award

1. Award will be made to the responsible offeror whose proposal contains the combination of technical and price offering the best value to the Postal Service. An award will not necessarily be made to the lowest price offered if the associated technical merits of that proposal are considered acceptable.
2. If this solicitation results in a contract for more than \$1 million, the Contracting Officer must approve the offeror's sub-contracting plan prior to award. No sub-contracting plan is required with the initial proposal submittal. The contracting officer will request a sub-contracting plan in the "Intent to Award" letter to the otherwise successful offeror(s).

REPRESENTATIONS AND CERTIFICATIONS

PROVISION 1-3: Domestic Source Certificate - Construction Materials (October 2019)

By checking this box ☐, the offeror certifies that only domestic construction materials (as defined in the Clause 1-10: Preference for Domestic Construction Materials), will be used in the performance of this contract, except for foreign construction materials listed below:

Material	Quality	Estimated Cost
_____	_____	_____
_____	_____	_____
_____	_____	_____



PROVISION 4-3: Representations and Certifications (October 2019)

a Type of Business Organization. The offeror, by checking the applicable blocks, represents that it:

(1) Operates as:

☐ a corporation incorporated under the laws of the state of _____; or country of _____ if incorporated in a country other than the United States of America.

☐ an individual;

☐ a partnership;

☐ a joint venture;

☐ a limited liability company;

☐ a nonprofit organization; or

☐ an educational institution; and

(2) Is (check all that apply)

☐ a small business concern;

☐ a minority business (indicate minority below):

☐ Black American

☐ Hispanic American

☐ Native American

☐ Asian American:

☐ a woman-owned business; or

☐ none of the above entities.

(a) A small business concern for the purposes of Postal Service purchasing means a business, including an affiliate, that is independently owned and operated, is not dominant in producing or performing the supplies or services being purchased, and has no more than 500 employees, unless a different size standard has been established by the Small Business Administration (see 13 CFR 121, particularly for different size standards for airline, railroad, and construction companies). For subcontracts of \$50,000 or less, a subcontractor having no more than 500 employees qualifies as a small business without regard to other factors.

(b) Minority Business. A minority business is a concern that is at least 51 percent owned by, and whose management and daily business operations are controlled by, one or more members of a socially and economically disadvantaged minority group, namely U.S. citizens who are Black Americans, Hispanic Americans, Native Americans, or Asian Americans. (Native Americans are American Indians, Eskimos, Aleuts, and Native Hawaiians. Asian Americans are U.S. citizens whose origins are Japanese, Chinese, Filipino, Vietnamese, Korean, Samoan, Laotian, Kampuchean (Cambodian), Taiwanese, in the U.S. Trust Territories of the Pacific Islands or in the Indian subcontinent.)

(c) Woman-owned Business. A woman-owned business is a concern at least 51 percent of which is owned by a woman (or women) who is a U.S. citizen, controls the firm by exercising the power to make policy decisions, and operates the business by being actively involved in day-to-day management.

(d) Educational or Other Nonprofit Organization. Any corporation, foundation, trust, or other institution operated for scientific or educational purposes, not organized for profit, no part of the net earnings of which inures to the profits of any private shareholder or individual.

(3) Is (check all that apply)

☐ a Postal Service employee or a business organization substantially owned or controlled by such an individual.

☐ a spouse of a Postal Service employee or a business organization substantially owned or controlled by such an individual.

☐ another family member of a Postal Service employee or a business organization substantially owned or controlled by such an individual.

☐ an individual residing in the same household as a Postal Service employee or a business organization substantially owned or controlled by such an individual.

(Note: Offers from any of the sources listed in subparagraph a.3, may not be considered for an award pending review and recommendation by the Postal Service Ethics Office.

b. Parent Company and Taxpayer Identification Number



(1) A parent company is one that owns or controls the basic business policies of an offeror. To own means to own more than 50 percent of the voting rights in the offeror. To control means to be able to formulate, determine, or veto basic business policy decisions of the offeror. A parent company need not own the offeror to control it; it may exercise control through the use of dominant minority voting rights, proxy voting, contractual arrangements, or otherwise.

(2) Enter the offeror's U.S. Taxpayer Identification Number (TIN) in the space provided. The TIN is the offeror's Social Security number or other Employee Identification Number (EIN) used on the offeror's Quarterly Federal Tax Return, U.S. Treasury Form 941, or as required by Internal Revenue Service (IRS) regulations. Offeror's TIN: _____

(3) IRS Form W-9, Request for Taxpayer Identification Number and Certification. You must complete a copy of IRS Form W-9 and attach it to this certification.

(4) Check this block if the offeror is owned or controlled by a parent company:

(5) If the block above is checked, provide the following information about the parent company:

Parent Company's Name: _____

Parent Company's Main Office: _____
Address: _____
No. and Street: _____
City: _____ State: _____ ZIP Code: _____

Parent Company's TIN:----- _____

(6) If the offeror is a member of an affiliated group that files its federal income tax return on a consolidated basis (whether or not the offeror is owned or controlled by a parent company, as provided above) provide the name and TIN of the common parent of the affiliated group:

Name of Common Parent: _____
Common Parent's TIN: _____

c. Certificate of Independent Price Determination

(1) By submitting this proposal, the offeror certifies, and in the case of a joint proposal each party to it certifies as to its own organization, that in connection with this solicitation:

(a) The prices proposed have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to the prices with any other offeror or with any competitor;

(b) Unless otherwise required by law, the prices proposed have not been and will not be knowingly disclosed by the offeror before award of a contract, directly or indirectly to any other offeror or to any competitor; and

(c) No attempt has been made or will be made by the offeror to induce any other person or firm to submit or not submit a proposal for the purpose of restricting competition.

(2) Each person signing this proposal certifies that:

(a) He or she is the person in the offeror's organization responsible for the decision as to the prices being offered herein and that he or she has not participated, and will not participate, in any action contrary to paragraph a above; or

(b) He or she is not the person in the offeror's organization responsible for the decision as to the prices being offered but that he or she has been authorized in writing to act as agent for the persons responsible in certifying that they have not participated, and will not participate, in any action contrary to paragraph a above, and as their agent does hereby so certify; and he or she has not participated, and will not participate, in any action contrary to paragraph a above.

(3) Modification or deletion of any provision in this certificate may result in the disregarding of the proposal as unacceptable. Any modification or deletion should be accompanied by a signed statement explaining the reasons and describing in detail any disclosure or communication.

d. Certification of Nonsegregated Facilities

(1) By submitting this proposal, the offeror certifies that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform services at any location under its control where segregated facilities are maintained. The offeror agrees that a breach of this certification is a violation of Clause 9-7: Equal Opportunity in this contract.

(2) As used in this certification, segregated facilities means any waiting rooms, work areas, rest rooms or wash rooms, restaurants or other eating areas, time clocks, locker rooms or other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment area, transportation, or housing facilities provided for employees that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin, because of habit, local custom, or otherwise.

(3) The offeror further agrees that (unless it has obtained identical certifications from proposed subcontractors for specific time periods) it will obtain identical certifications from proposed subcontractors before awarding subcontracts exceeding \$10,000 that are not exempt from the provisions of Clause 9-7: Equal Opportunity; that it will retain these certifications in its files; and that it will forward the following notice to these proposed subcontractors (except when they have submitted identical certifications for specific time periods):

Notice: A certification of nonsegregated facilities must be submitted before the award of a subcontract exceeding \$10,000 that is not exempt from Clause 9-7: Equal Opportunity. The certification may be submitted either for each subcontract or for all subcontracts during a period (quarterly, semiannually, or annually).

e. Certification Regarding Debarment, Proposed Debarment, and Other Matters



(This certification must be completed with respect to any offer with a value of \$100,000 or more.)

(1) The offeror certifies, to the best of its knowledge and belief, that it or any of its principals:

(a) Are ___ are not ___ presently debarred or proposed for debarment, or declared ineligible for the award of contracts by any Federal, state, or local agency;

(b) Have ___ have not ___, within the 3-year period preceding this offer, been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and

(c) Are ___ are not ___ presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in subparagraph (b) above.

(2) The offeror has ___ has not ___, within a 3-year period preceding this offer, had one or more contracts terminated for default by any Federal, state, or local agency.

(3) "Principals," for the purposes of this certification, means officers, directors, owners, partners, and other persons having primary management or supervisory responsibilities within a business entity (e.g., general manager, plant manager, head of a subsidiary, division, or business segment, and similar positions).

(4) The offeror must provide immediate written notice to the contracting officer if, at any time prior to contract award, the offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(5) A certification that any of the items in e.1 and e.2 of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered as part of the evaluation of the offeror's capability (see section 2-26.4.2, Supplier Capability the Postal Service's Supplying Principles and Practices). The offeror's failure to furnish a certification or provide additional information requested by the contracting officer will affect the capability evaluation.

(6) Nothing contained in the foregoing may be construed to require establishment of a system of records in order to render, in good faith, the certification required by e.1 and e.2 of this provision. The knowledge and information of an offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(7) This certification concerns a matter within the jurisdiction of an agency of the United States and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Section 1001, Title 18 U.S.C.

(8) The certification in e.1 and e.2 of this provision is a material representation of fact upon which reliance was placed when making the award. If it is later determined that the offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Postal Service, the contracting officer may terminate the contract resulting from this solicitation for default.

f. Incorporation by Reference. Wherever in this solicitation or contract a standard provision or clause is incorporated by reference, the incorporated term is identified by its title, its provision or clause number assigned to it, and its date. The text of incorporated terms may be found at <http://about.usps.com/manuals/pm/welcome.htm>. If checked, the following provision(s) is incorporated in this solicitation by reference (Contracting officer will check as appropriate):

☐ Provision 9-1: Equal Opportunity Affirmative Action Program.

☐ Provision 9-2: Preaward Equal Opportunity Compliance Review.

☐ Provision 9-3: Notice of Requirements for Equal Opportunity Affirmative Action

PROVISION 8-2: Representation of Rights in Data (March 2006)

a. By completion of the representation below, the offeror must identify in its proposal the data (including subcontractor-furnished data) it intends to identify as "limited rights data" or "restricted computer software," or that it does not intend to provide as required. Any identification of limited rights data or restricted rights computer software is not determinative of the status of such data, should a contract be awarded to the offeror.

Representation Concerning Data Rights

Offeror has reviewed the requirements for the delivery of technical data or computer software and states (offeror check appropriate block):

_____ None of the data proposed for fulfilling the requirements qualifies as limited rights data or restricted computer software.

_____ Data proposed for fulfilling the requirements qualify as limited rights data or restricted computer software and are identified as follows:



b. "Limited rights data" and "restricted computer software" are defined in the contract clauses entitled Clause 8-6: Rights in Technical Data and Clause 8-9: Rights in Computer Software.

PROVISION 9-1: Equal Opportunity Affirmative Action Program (March 2006)

The offeror, by checking the applicable block or blocks, represents that it

1. ___ has developed and has on file, ___ has not developed and does not have on file, at each establishment, affirmative action programs as required by the rules and regulations of the Secretary of Labor (41 CFR 60-1 and 60-2) and ___ has, ___ has not filed the required reports with the Joint Reporting Committee, or
2. ___ has not previously had contracts subject to the written affirmative action program requirement of the rules and regulations of the Secretary of Labor.

F-PROVISION F-401: Authorized Negotiators (March 2006)

The Offeror represents that the following persons are authorized to negotiate on its behalf with the Postal Service in connection with this solicitation/purchase of professional services (*offeror list names, titles, and telephone numbers of the authorized negotiators*).

	Name	Title/Position	Telephone #
1			
2			
3			
4			
5			
6			

SECTION B: THE CONTRACT

THE WORK

CLAUSE 5-4: Certification of Cost or Pricing Data (July 2014)

a. The supplier must submit a Certificate of Current Cost or Pricing Data, as contained in section 2-34.15 of the USPS Supplying Principles and Practices, when the contract action (including modifications) is valued at \$1 million or more and is made noncompetitively; when the goods and services are not commercially-available; and when fair and reasonable pricing cannot be determined by other means, such as price analysis. The certificate must be submitted as of the date of agreement on price or, if applicable, an earlier date agreed upon between the parties that is as close as practicable to the date of agreement on price.

b. Before awarding any subcontract or pricing any subcontract modification, the supplier must require the subcontractor to submit cost or pricing data that is certified whenever cost or pricing data is required to be certified by the supplier under the circumstances described under paragraph a. above. The supplier will be responsible for requiring the subcontractor to submit cost or pricing data and ensuring it is certified. The supplier must retain the certificate it obtains from the subcontractor until three years after final payment under this contract or any longer period required by statute or other clauses in this contract.

B-CLAUSE B-41: Conditions Affecting the Work (March 2006)

The supplier is responsible for having taken steps reasonably necessary to ascertain the nature and location of the work, and the general and local conditions that can affect the work or its costs. Any failure by the supplier to have done so does not relieve the supplier from responsibility for successfully performing the work without additional expense to the Postal Service. The Postal Service assumes no responsibility for any understanding or representations concerning conditions made by any of its officers or agents before execution of this contract, unless such understanding or representations by the Postal Service are expressly stated in the contract.

B-CLAUSE B-56: Shop Drawings, Coordination Drawings, and Schedules (March 2006) Modified

a. The supplier will submit shop drawings, coordination drawings, and schedules for approval as required by the specifications or requested by the contracting officer, as follows:

E08 VETS4212-Validations (21 April 2017)

In furtherance of Clause 9-14 as included in this solicitation, it is noted that the Vietnam Era Veterans Readjustment Assistance Act of 1972, Executive Order 11701 of January 23, 1973, the Veterans Employment Opportunities Act of 1999, and the implementing regulations of the Secretary of Labor (41 CFR 60-250) require Suppliers to take affirmative action to employ, and advance in employment, qualified special disabled veterans, veterans of the Vietnam era, and other eligible veterans without discrimination based on their disability or veterans' status, and to list all employment openings with appropriate local employment services.

Contracts may **not** be awarded to suppliers that have not submitted an annual Form VETS-4212, Federal Contractor Veterans' Employment Report.”

Your firm must submit a copy of the dol.gov validation document. If you are not registered with the Department of Labor VETS-4212 Report System you must register on the DOL website at: <https://vets4212.dol.gov/vets4212>

Upon registration you must provide us with a copy of the DOL email confirmation notification.



A new V4212 report has been submitted for ABC Company 1 message

VETS4212-customersupport@dol.gov <VETS4212-customersupport@dol.gov>
To:

Thu, Jul 11, 2019 at 2:34 PM

Hello,

A V4212 report has been successfully submitted for ABC Company:

Company Number: T216342
Report Type: V4212
Form Type: SE
Filing Cycle: 2019
Report ID: 4081376

Thank you.

If you have any questions or concerns in regard to this notification, please contact the VETS-4212 Service Desk at VETS4212-customersupport@dol.gov or (866) 237-0275.
Please do not respond to this email directly as any responses go to an unmonitored account.

LIST OF PREQUALIFIED CONTRACTORS

**Attachment 13
(NOT APPLICABLE)**

FUNCTIONAL DESIGN SPECIFICATION (SOW)

Attachment 14

SWITCHGEAR REPLACEMENT

Hartford, CT - P&DC
USPS Project No. B43529
A/E Project No. 18034.00

SUMMARY OF WORK

SCOPE:

- A. The Contractor must provide all material, labor, tools, plant, supplies, equipment, transportation, superintendence, temporary construction of every nature, and all other services and facilities necessary to complete the construction of a postal facility for the Postal Service, including all incidental work described in the contract documents.
- B. The scope of work includes but is not limited to:
 - 1. Provide new roof-mounted, pre-assembled E-house complete with switchboards, transformer, panelboard, lighting, wiring devices, and HVAC.
 - 2. Provide new power distribution to connect to existing panels, transformers, motor control centers, etc.
 - 3. Disconnect and remove existing switchboards and modify associated feeders.
 - 4. Provide new lighting and fire alarm devices where indicated.
 - 5. Replace roof membrane below new steel frame.
 - 6. New steel frame to support new electrical equipment.
 - 7. Exterior wall work related to electrical penetrations.
- C. All work shall be in accordance with applicable codes and local regulations that may apply. In case of conflict in or between the Contract Documents and a governing code or ordinance, the more stringent standard shall apply.

SUBSURFACE INVESTIGATION REPORT

**Attachment 15
(NOT APPLICABLE)**

ENVIRONMENTAL REPORTS

Attachment 16

(NOT APPLICABLE)

SAFETY & HEALTH GUIDE FOR CONTRACTORS (OCCUPIED BUILDINGS)

Attachment 17

Appendix E

Safety and Health Guide for Contractors

- Certificate of Understanding
- Safety and Health and Related Environmental Requirements
- Emergency Procedures

Certificate of Understanding

This *Safety and Health Guide for Contractors* was developed by the Postal Service to provide guidance for contractors hired to perform repair, alteration, renovation, demolition, equipment installation, and other work requiring access to postal-owned or -leased property.

Distribution

A copy of this Certificate of Understanding should be signed by the contractor's representative at the postaward orientation conference or before the commencement of work. A copy of this guide should be readily accessible where the work is being performed. The contracting officer's representative (COR) should thoroughly brief the contractor's representative on the Contract Safety and Health Requirements contained herein.

Contractor's Verification Statement

As a representative of _____
(contractor's name), I have received the *Safety and Health Guide for Contractors* prepared by the Postal Service. As the contractor's representative, I understand and accept the requirements contained herein, and I have reviewed each of the required sections of the guide with the COR and/or the designated Postal Service representative. I agree to review the contents of this guide with all subcontractors hired to perform work on postal property.

Contractor's Representative

Printed Name: _____ Contract Number: _____

Signature: _____ Date: _____

Designated Postal Service Representative

Printed Name: _____ Contract Number: _____

Signature: _____ Date: _____

Safety Representative (If Required by COR)

Printed Name: _____ Contract Number: _____

Signature: _____ Date: _____

Postal Service CO, COR, or Project Manager

Printed Name: _____ Contract Number: _____

Signature: _____ Date: _____

Maintain a copy of this signed form in the Postal Service and contractor's project files.

Safety and Health and Related Environmental Requirements

Issue	Regulatory Statement	Postal Requirements
Asbestos	Asbestos-containing building materials (ACBM) is regulated by OSHA standards 29 CFR 1910.1001 and 1926.1101 requirements as well as by the Toxic Substances Control Act, the National Emissions Standards for Hazardous Air Pollutants, and the Resource Conservation and Recovery Act.	<i>Review of Facility Asbestos Survey:</i> Before any building maintenance, equipment installation, renovation, alteration, demolition, or other project begins, determine whether ACBM will be disturbed. <i>Proper Work Practices:</i> If ACBM is present, follow proper control procedures and work practices. <i>Consultation With Facility Asbestos Coordinator:</i> Consult with the facility manager or his or her designee before the start of any work likely to disturb ACBM. Disturbance means activities that crumble or pulverize ACBM or presumed asbestos-containing material (PACM) or generate visible debris. Operations may include drilling, abrading, cutting a hole, pulling cable, and crawling through tunnels or attics and spaces above the ceiling where asbestos is actively disturbed or asbestos-containing debris is actively disturbed. <i>Asbestos Work Authorization:</i> You must have an approved Form 8210, <i>Work Authorization — Asbestos</i>, before work begins within any building containing asbestos.
Barricades, Barriers, and Warnings	Barricades are required for most contractor activities to isolate the work area from other personnel and to protect the contractor's employees. OSHA barricade requirements are found in 29 CFR 1926, Subpart G, and other 29 CFR 1910 and 1926 standards.	Your barricades must meet the OSHA requirements. In addition, you assume control of your work area during your activities unless otherwise specified in writing by the contracting officer (CO) or contracting officer's representative (COR).
Confined Spaces	OSHA confined space requirements are found in 29 CFR 1910.146.	Confined space work must meet the OSHA requirements. You must have a comprehensive confined space program that includes a written program, employee training, entry and testing equipment, and rescue capabilities. If you require access to confined space requiring a permit, then the trained, designated Postal Service representative must review and approve the project and permit. Entry into other confined spaces must be in accordance with OSHA regulations.
Electrical Work	OSHA has extensive electrical safety requirements in general industry (29 CFR 1910, Subpart S) and construction (29 CFR 1926, Subpart K) that must be followed. All electrical installations, modifications, etc., must comply with the most current edition of the National Electric Code NFPA 70 and the applicable State Electrical Code.	Lock or rope off work areas involving exposed energized equipment or have an attendant present to prevent accidental contact by unqualified people. Refer to the Barricade section of this guideline for additional information.
Elevated Work and Fall Protection	OSHA has very stringent fall protection requirements concerning elevated work. The OSHA standard is located in 29 CFR 1926.500–503.	Follow strictly the applicable OSHA fall protection requirements.

Issue	Regulatory Statement	Postal Requirements
Excavation	Excavations are regulated by OSHA requirements by OSHA standards in 29 CFR 1926.650–652.	All excavations 4 feet or more in depth must be properly shored or sloped and meet all OSHA requirements. Before any digging or drilling commences, inform the Postal Service COR and call Dig Safe or its local equivalent to determine whether any underground utilities are located in the work area. Submit documentation that these notifications have been performed. You must not begin digging or drilling until you have verified that underground utilities have been identified and are properly marked so that work may be accomplished in a safe manner.
Fire Protection	OSHA and State Safety regulations require fire protection systems, extinguishers, and fire safety devices to be fully functional. Contract work must not adversely affect the performance of these systems.	Do not block, remove, or otherwise prevent Postal Service fire extinguishers from being immediately accessible and usable. If a system must be impaired by a scheduled shutdown, notify the appropriate Postal Service representative and do not proceed without Postal Service authorization.
Hazard Communication	The OSHA Hazard Communication standard (29 CFR 1910.1200, 1926.59) requires that employers provide each employee information concerning the hazards of chemicals in the work area, safe work procedures, and emergency procedures.	Inform the Postal Service before any chemicals are used. Before materials are brought on site, provide material safety data sheets (MSDSs) and an inventory of materials. For projects that are anticipated to use substantial quantities of hazardous materials, you may be required to provide a routing, storage, and waste disposal plan. Upon request, the Postal Service will make available to you MSDSs for hazardous materials the Postal Service uses in the contractor work area.
Hazardous Materials	OSHA has specific requirements concerning specific classes of hazardous materials, including compressed gases (29 CFR 1910, Subpart H) and flammable and combustible liquids (29 CFR 1910.106).	Follow all OSHA requirements regarding hazardous materials. Hazardous materials include, but are not limited to, flammable and combustible liquids, gasoline, diesel fuel, motor oil, lubricating oil, hydraulic oil, corrosive cleaners, and battery acid. Provide secondary containment for all containers of liquids that are over 5 gallons in capacity. Immediately report all hazardous material releases ("spills"), regardless of how small or where they occur, to the designated Postal Service representative. Releases include solids, liquids, and gases.
Hot Work	Contractors who perform hotwork — welding, brazing, brazing, soldering, torch cutting, chipping, grinding, and any other task that generates sparks or heat — are required to have a Hot Work Procedure that meets OSHA requirements found in 29 CFR 1910.252.	Do not begin any hot work until a Postal Service qualified person has completed and signed a Postal Service Hot Work Permit. The permit will be valid for only a single work shift. You must display the permit at the work site. You are prohibited from performing hot work (a) when the Postal Service has not authorized it, (b) in locations in which fire protection systems have been impaired, (c) in the presence of explosive or flammable atmospheres, or (d) in locations where large quantities of flammable and combustible materials are unprotected.

Issue	Regulatory Statement	Postal Requirements
Powered Industrial Trucks	OSHA and the U.S. Department of Transportation have extensive regulations concerning powered industrial trucks and other mobile equipment, such as forklifts, platform trucks, and tow-motors. The OSHA regulations are located in 29 CFR 1910.178, 29 CFR 1926.602, and elsewhere and in various paragraphs of 49 CFR 40 through 399.	Powered industrial trucks and other mobile equipment must follow all traffic rules of the postal facility. The maximum speed limit for in-plant powered vehicles is 5 miles per hour. Many work areas have posted speed limits that you must strictly follow. Perform refueling only in authorized locations following safe procedures. As a general rule, the Postal Service does not allow gas- or diesel-powered industrial equipment inside postal facilities. Coordinate exceptions to the rule through the servicing safety office.
Ladders	Contractors commonly use ladders to access work areas and perform services. OSHA has Ladder standards located in various parts of the Construction and General Industry regulations.	Strictly follow all OSHA requirements regarding ladders. Barricade the ladder use area to prevent contact with mobile equipment and employees.
Lead-Based Paint	Lead-based paint (LBP) is regulated by OSHA standards 29 CFR 1910.1025 and 1926.62 as well as by the Toxic Substances Control Act (40 CFR 260 et seq.) and the Resource Conservation and Recovery Act 760 et seq.).	<i>Review of Facility Lead Survey:</i> Before any construction, alterations, and/or repair activities begin, determine whether LBP will be disturbed. If the painted surface has not been tested, you must have it tested before beginning any activities that could potentially disturb LBP. <i>Proper Work Practices:</i> If LBP is present, follow proper control procedures and work practices. <i>Consultation With Facility Manager:</i> Consult with the facility manager or his or her designee before the start of any work likely to disturb LBP. Examples of activities that may affect LBP include paint removal by scraping, sanding, power tools, or heat guns; alterations that include removing drywall, structural steel, or other building materials coated with LBP; welding, cutting, or other hot work on coated metal surfaces; abrasive blasting of mail boxes and other equipment; and moving or cleaning of abrasive blasting enclosures.
Lockout/Tagout	Lockout/tagout of equipment and machinery is required before any servicing or maintenance is performed. OSHA standards 29 CFR 1910.147 and 1910.333 have detailed lockout/tagout requirements.	Provide a copy of your lockout/tagout procedures, which must meet or exceed the OSHA Lockout/Tagout standard. You will be given access to and must review the Postal Service lockout/tagout program. If you encounter a Postal Service lockout/tagout device that prevents the continuation of work, do not make any attempts to remove, tamper with, or bypass the devices. Contact a Postal Service Maintenance official and make arrangements to have the lockout device removed in accordance with Postal Service lockout removal policies.
Machinery and Equipment	OSHA standards that apply to the hazards created by machinery, tools, and equipment are located in general industry regulations (29 CFR 1910) and construction regulations (29 CFR 1926).	Postal facilities use state-of-the-art mail handling machinery, some of which may operate automatically. Hazards may include, but are not limited to, moving parts and power transmission apparatus, pinch points, electrical contact, and hot surfaces. Do not use machine surfaces as work platforms. Contact the designated Postal Service representative concerning facility machinery.

Safety and Health Guide for Contractors

Issue	Regulatory Statement	Postal Requirements
Personal Protective Equipment	The OSHA general Personal Protective Equipment standard is located in 29 CFR 1910.132, with additional requirements located throughout OSHA General Industry and Construction standards.	Before beginning work, evaluate the work area for hazards, determine whether contract employees will be required to use personal protective equipment (PPE) to protect themselves from these hazards, and document the hazard assessment. Wear the PPE required by the postal facility in which you are working, regardless of your perception of hazard potential.
Regulated And Prohibited Materials	The U.S. Environmental Protection Agency regulates or prohibits the use of certain materials such as chlorofluorocarbons (see 40 CFR 82), lead solder (see Safe Drinking Water Act, 40 CFR 100–149), or sprayed-on asbestos-containing building material (see Toxic Substances Control Act, 40 CFR 76 et seq.).	<i>Pesticides.</i> The Postal Service has restricted the use of pesticides. Obtain prior approval of the district environmental compliance coordinator for special cases that may require the use of pesticide treatments. <i>Seventeen Chemical Prohibition.</i> Adhere to the Postal Service Hazard Communication Program and chemical prohibition policies. Do not use on postal property any of the 17 chemicals prohibited by EPA unless a Postal Service person authorizes its use (each of these chemical must be authorized separately). The district environmental compliance coordinator can supply the list. <i>Asbestos-Free Products.</i> Install no asbestos-containing products or materials in postal facilities. <i>Lead.</i> Apply no lead-based paint in postal facilities.
Scaffolding	OSHA has extensive Scaffolding standards, meant mainly to prevent employees from falling off scaffolds, that apply to the variety of types of scaffolds available and the numerous uses for them. The standards can be found in 29 CFR 1926.450–454.	Follow strictly the applicable OSHA scaffolding requirements. Provide adequate barrier protection around the scaffolding to prevent hazards to postal workers.
Walking and Working Surfaces	Personnel must be able to move about their work area safely and to exit the area and building safely if an emergency occurs. OSHA has a variety of regulations concerning these requirements in both General Industry (29 CFR 1910) and Construction (29 CFR 1926) standards.	If the project requires temporary modifications to the means of egress, inform the designated Postal Service representative before performing such actions, provide appropriate alternative means of egress, and communicated these to all employees.

Emergency Procedures

Preparations for Emergency	Be prepared for emergency situations. Ensure that emergency telephone numbers are site specific, readily available, easily read, and communicated to all employees. Train and authorize employees to implement emergency procedures.
Medical Emergencies	Have procedures and medical supplies to provide emergency medical services for your own personnel. Determine how to contact emergency medical services before work begins, and have on-site capabilities to contact such services immediately.
Fires	See Fire Protection above. In the event of a fire, you must: ■ Immediately remove personnel from the area or building following Postal Service evacuation procedures. ■ Immediately contact the nearest postal employee and inform him or her of the fire. You may also activate an emergency alarm in the area. If no postal employees are on-site, immediately contact the local fire department. Personnel trained in the use and limitations of fire extinguishers may attempt to extinguish the fire if it is safe to do so.
Chemical Releases	See Hazardous Materials above. If the event of a hazardous material release, you must: ■ Immediately remove personnel from the area or building following Postal Service evacuation procedures. ■ Immediately contact the designated Postal Service representative and inform him or her of the release. You may also activate an emergency alarm in the area. If no postal employees are on-site, immediately contact the local fire department. Contractor personnel should not respond to the release unless specifically trained and protected to perform hazardous material response.
Power Outages	In the event of a power outage, you must: ■ Immediately stop work and assemble for a head count and possible facility egress. ■ Inform all contract employees that equipment may automatically restart when power resumes. ■ Immediately contact the designated Postal Service representative and inform him or her of the status of contract work and personnel head count. Relay at this time all hazards created due to the power outage. When power resumes evaluate the status of operations that were being performed relative to hazard potential. For example, the interruption of ventilation in confined spaces may generate atmospheric hazards.
Accident Investigation and Reporting	As soon as is practical after an accident, investigate and document an accident investigation. The documentation must describe the incident and identify the causes and the corrective actions that will prevent future incidents. Report all accidents, whether or not they result in injury. Give the written report to the Postal Service COR within 24 hours of the accident or incident.

CERTIFICATE - ASBESTOS/LEAD PAINT

Attachment 18

CONTRACT NUMBER

Certificate of Asbestos and Lead-Based Paint

To: Contracting Officer United States Postal Service

Subject: Certification for construction

Postal facility name: _____

Postal facility address: _____

Certification for new construction:

This Contractor/Owner hereby certifies that no asbestos-containing material in excess of 1 percent as defined by applicable US Environmental Protection Agency regulations and no lead-based paint has been furnished or installed at the referenced project.

Contractor/Owner name: _____

Signature: _____

Address: _____

Telephone: _____ Date executed: _____

The penalty for making a false statement is prescribed by 18 USC 1001.

BASIC SECURITY CLEARANCE REQUIREMENTS (FORM)

Attachment 19

Clause F-102 Supplier Screening Requirements (February 2020)

- a. All individuals working on behalf of the Contracted Supplier, either directly employed by the contracted supplier or working as an employee of a subcontractor, material supplier, consultant, etc. (hereinafter referred to collectively as Supplier Personnel), that will physically access an occupied Postal Service facility for more than two (2) consecutive work-weeks during the performance of the contract are subject to the requirement outlined herein;
- b. When applicable as outlined in F-102.a, and for each individual defined as Supplier Personnel, a Basic Security Clearance requires the Contracted Supplier to certify that the individual:
 1. Has passed a screening test for cocaine, marijuana, amphetamine/methamphetamine, opiates, and phencyclidine (PCP), which the Substance Abuse and Mental Health Services Administration (SAMHSA) has identified as the five most abused substances. The screening test must be performed by a SAMHSA-approved, certified laboratory and must meet the cut-off levels established by SAMHSA. The certification must include the name of the employee, the name of the institution that performed the test, the name of the agency that certified the laboratory, the date of the test (within 90 days of the submission of the results), and the negative results of the test.
 2. Is not on parole, probation, or under suspended sentence for commission of a felony.
 3. Has not been convicted of a criminal violation during the past 5 years for offenses that involved dishonesty, moral turpitude, financial gain, or assault.
 4. Has not engaged in the illegal use, possession, sale, or transfer of narcotics or other illicit drugs during the past 5 years.
 5. Does not have pending serious criminal charges such as murder, rape, robbery, burglary, physical assault, sale and distribution of drugs, or weapons violations. If criminal charges are pending, the Basic background investigation is not to be authorized by the Contracting Officer, the Contracting Officer's Representative (COR), or designee until the charges have been resolved.
- c. For Supplier Personnel that, as part of the performance of the contract requirements and as determined by the Contracting Officer, will have access to postal information that, if compromised, would have an adverse impact on the mission of the Postal Service, or who have restricted access to postal facilities, shall undergo a Sensitive Background Investigation.

This requirement applies to Supplier Personnel, including supplier subcontractor personnel, requiring access to Postal Service computer networks for such purposes as installing, implementing and/or programming security-related systems, components and/or applications.

A Sensitive Background Investigation requires the Contracted Supplier to provide to the Contracting Officer or designee the following:

1. PS Form 2025, Contract Personnel Questionnaire.
 2. PS Form 2181-C, Authorization and Release — Background Investigations (USPS Contractors and Employees of Contractors).
 3. PS Form 2181-D, Disclosure and Release for Consumer Reports.
 4. PS Form 2013, Security Clearance Processing Request.
 5. FD 258 Fingerprint Chart — Applicant (two copies).
 6. Results from a county criminal history inquiry through local agencies, based on where the individual has resided and has been employed during the past 5 years.
 7. Results of a credit bureau inquiry, not older than 60 days.
 8. Verification of the individual's employment history for the past 5 years, including a list of reasons for termination or resignation from prior employers.
 9. Verification of the individual's citizenship or status through review of birth certificate, naturalization document, passport, or work authorization.
 10. Certification that the individual has passed a drug screening test pursuant to procedures for a Basic background investigation.
- d. The Contracted Supplier shall maintain supporting documentation for the required drug screening tests, criminal history inquiries and the completed certification forms, and shall make them available at any time for review by the Contracting Officer, but only when requested by the Contracting Officer.



Basic Security Clearance Requirements

Contractor: _____

Contract Number: _____

Project: _____

Location: _____

Basic Security Clearance Requirements:

- a. Has passed a screening test for cocaine, marijuana, amphetamine/methamphetamine, opiates, and phencyclidine (PCP), which the Substance Abuse and Mental Health Services Administration (SAMHSA) has identified as the five most abused substances. The screening test must be performed by a SMAHSA-approved, certified laboratory and must meet the cut-off levels established by SAMHSA. The certification must include the name of the employee, the name of the institution that performed the test, the name of the agency that certified the laboratory, the date of the test (within 90 days of the submission of the results), and the negative results of the test.
- b. Is not on parole, probation, or under suspended sentence for the commission of a felony.
- c. Has not been convicted of a criminal violation during the past five years for offenses that involved dishonesty, moral turpitude, financial gain or assault.
- d. Has not engaged in the illegal use, possession, sale, or transfer of narcotics or other illicit drugs during the past 5 years.
- e. Does not have pending serious criminal charges, such as murder, rape, robbery, burglary, physical assaults, sale and distribution of drugs or weapons violations. If criminal charges are pending, the basic clearance is not to be authorized until the charges have been resolved.

NOTE: The contractor shall maintain supporting documentation for the drug screening tests and the criminal history inquiries subject to review by the U. S. Postal Service. This documentation is not to be submitted to the Postal Service, unless specifically requested by the Contracting Officer.

Signing this document certifies the Basic Security Clearance Requirements have been satisfied by the attached list of employees. If circumstances change from those stated regarding any individual, the contractor will submit these changes in writing to the USPS stating compliance with ASM 13, July 1999, prior to allowing any individual access to the Postal Facility. An individual who has had access to a USPS facility that no longer complies with the Basic Security Clearance Requirements, the contractor will immediately terminate that individual's access to the project facility.

Contractor's Certification:

I certify each employee listed on the attached page(s) fulfills the Basic Security Clearance Requirements (Clause F-102) mandated by the U.S. Postal Service for contract employees under this contract.

Certifying Officer (Type/Print)

Signature

Date

Position Title

Phone Number

Mailing Address

City

State

ZIP+4