

THE BOARD OF EDUCATION OF MONTGOMERY COUNTY  
MONTGOMERY COUNTY PUBLIC SCHOOLS  
PROCUREMENT UNIT  
45 West Gude Drive, Suite 3100  
Rockville, MD 20850-9999  
301-279-3097

December 20, 2021

INVITATION FOR BID

9755.1, NEW EMERGENCY ELECTRICAL GENERATING  
SYSTEM AT VARIOUS LOCATIONS

Bid Opening Time: 2:00PM

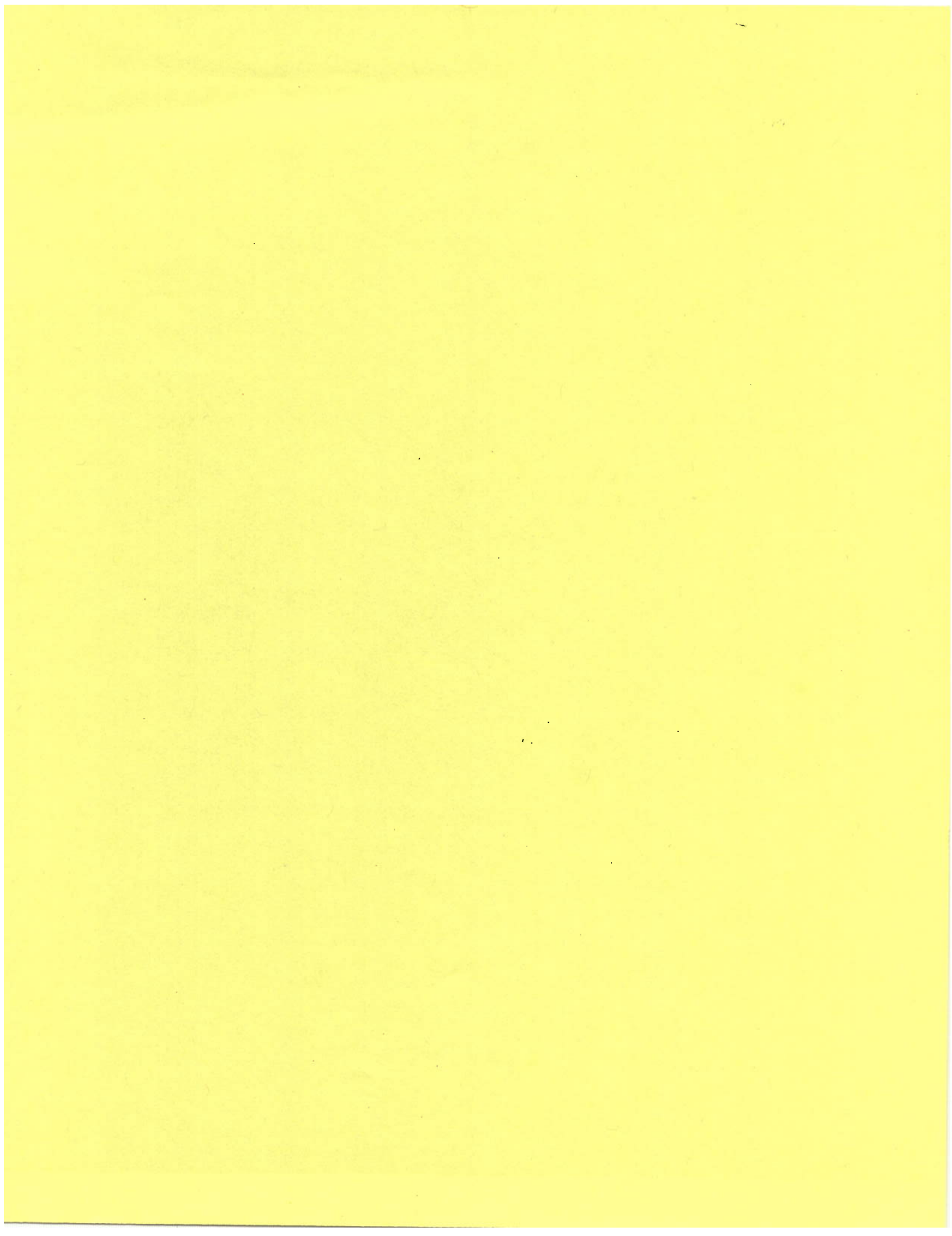
Bid Opening Date: January 11, 2021

NOTE: In the event of emergency closing of Board of Education offices, this bid will open at the same time on the next regular working day.

**BIDS RECEIVED AFTER THE BID OPENING TIME AND DATE WILL NOT BE ACCEPTED.**

COMPANY NAME: \_\_\_\_\_

1. Term of Contract: February 25, 2022 through February 24, 2023
2. Terms of Delivery: 30 Days
3. Delivery Destination: Individual Location, Noted on Purchase Order
4. Bid Security Required: Yes  
**Bid Security must be made payable to Montgomery County Board of Education**
5. Performance Bond Required: Yes
- 6a. Samples Required: ☒ Yes ☐ No
- 6b. Sample Delivery Requirements:
  - ☐ Deliver to the Procurement Unit
  - ☐ Deliver to Supply and Property Management
  - ☐ Deliver to the Food Service Warehouse
  - ☒ Other
- 6c. Sample Delivery Time:
  - ☐ Prior to bid opening
  - ☐ At time of bid opening
  - ☒ Subsequent to bid opening



## NOTICE TO BIDDERS

The appropriate items below must be completed as part of the bid. Failure to comply may disqualify your bid. Type or print legibly in ink.

**I. BIDDER INFORMATION:** As appropriate, check and/or complete one of the items below.

- ☐ 1. Legal name (as shown on your income tax return) \_\_\_\_\_
- ☐ 2. Business Name (if different from above) \_\_\_\_\_
- ☐ 3. Tax Identification Number \_\_\_\_\_

A copy of your W-9 must be submitted with this bid response.

**II. BIDDER'S CONTACT INFORMATION:** This will be filed as your permanent contact information.

- 1. Company Name \_\_\_\_\_
- 2. Address \_\_\_\_\_
- 3. Bid Representative's Name \_\_\_\_\_
- 4. Phone Number(s)/Extension(s) \_\_\_\_\_
- 5. Fax Number \_\_\_\_\_
- 6. Email Address \_\_\_\_\_
- 7. Website \_\_\_\_\_

**III. PURCHASE ORDER ADDRESS:** Please complete if different from Bidder's Contact Information.

- 1. Purchase Order Address \_\_\_\_\_
- 2. Representative's Name \_\_\_\_\_
- 3. Phone Number (s)/Extension(s) \_\_\_\_\_
- 4. Fax Number \_\_\_\_\_
- 6. Email Address \_\_\_\_\_

**IV. PROMPT PAYMENT DISCOUNT:** MCPS may consider prompt payment discounts as part of the award process; however, the Board reserves the right to make awards according to the best interests of MCPS.

\_\_\_\_\_ Prompt payment discounts of less than twenty (20) days will not be considered.

**V. PURCHASING CARD AND SUA PAYMENT PROGRAM:** MCPS is currently utilizing a purchasing card and Single Use Accounts (SUA) payment program through JP Morgan MasterCard. Please check the appropriate box below.

☐ Yes, we accept MasterCard

☐ No, we do not accept MasterCard

**Note:** Beginning April 1, 2018, MCPS will no longer process check payments. To avoid payment delays after this change, all bidders that accept MasterCard are strongly encouraged to sign up to receive SUA payments upon being notified of an award. For bidders that do not accept MasterCard, the ACH payment method is also available. Please e-mail [SUA@mcpsmd.org](mailto:SUA@mcpsmd.org) to register for SUA, or e-mail [accountspayable@mcpsmd.org](mailto:accountspayable@mcpsmd.org) to



request ACH registration forms.

**VI. PURCHASE ORDER PREFERENCE:** Montgomery County Public Schools (MCPS) is in the process of issuing orders via Facsimile or US Mail. MCPS prefers facsimile. Please check your preference below.

☐ Facsimile    ☐ US Mail    ☐ Email    ☐ EDI

**VII. SLMBE (SMALL, LOCAL AND MINORITY BUSINESS ENTERPRISE):** Check the appropriate box below.

☐ African American    ☐ Asian American    ☐ Hispanic    ☐ Native American  
☐ Female    ☐ Disabled    ☐ None

**VIII. NON-DEBARMENT ACKNOWLEDGEMENT**

\_\_\_\_\_ I acknowledge that my firm has NO pending litigation and/or debarment from doing business with the State of Maryland or any of its subordinate government units and/or federal government within the past five (5) years.

\_\_\_\_\_ I acknowledge that my firm has pending litigation or has been debarred from doing business with the State of Maryland or any of its subordinate government units and/or federal government, within the past five (5) years. (Attachment)

As the duly authorized representative of the applicant, I hereby certify that the above information is correct and that I will advise Montgomery County Public Schools should there be a change in status.

By (Signature) \_\_\_\_\_

Name and Title \_\_\_\_\_

Witness Name and Title \_\_\_\_\_

**IX. BIDDER'S CERTIFICATION:** Upon notification of award, this document in its entirety is the awarded vendors contract with MCPS. By signing below, the undersigned acknowledges that s/he is entering into a contract with MCPS.

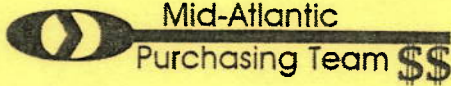
A. The undersigned proposes to furnish and deliver supplies, equipment, or services, in accordance with specifications and stipulations contained herein, and at the prices quoted. This certifies that this bid is made without any previous understanding, agreement or connection with any person, firm, or corporation making a bid for the same supplies, materials, or equipment, and is in all respects fair and without collusion or fraud.

B. I hereby certify that I am authorized to sign for the bidder. (Bidders are cautioned to read the material under Section XXVII, signature to Bids, and to comply with its stipulations.) I/We certify that none of this company's officers, directors, partners, or its employees have been convicted of bribery, attempted bribery, or conspiracy to bribe under the laws of any state or federal government; and that no member of the Board of Education of the Montgomery County Public Schools, Administrative or Supervisory Personnel, or other employees of the Board of Education has any interest in the bidding company except as follows:

By (Signature) \_\_\_\_\_

Name and Title \_\_\_\_\_

Witness Name and Title \_\_\_\_\_



**Metropolitan Washington Council of Governments Rider Clause  
Invitation For Bid 9755.1, NEW EMERGENCY ELECTRICAL GENERATING SYSTEM  
AT VARIOUS LOCATIONS**

USE OF CONTRACT(S) BY MEMBERS COMPRISING Mid –Atlantic Purchasing Team COMMITTEE

**Extension to Other Jurisdictions**

The [issuing jurisdiction] extends the resultant contract (s), including pricing, terms and conditions to the members of the Mid-Atlantic Purchasing Team, as well as all other public entities under the jurisdiction of the United States and its territories.

**Inclusion of Governmental & Nonprofit Participants (Optional Clause)**

This shall include but not be limited to private schools, Parochial schools, non-public schools such as charter schools, special districts, intermediate units, non-profit agencies providing services on behalf of government, and/or state, community and/or private colleges/universities that required these good, commodities and/or services.

**Notification and Reporting**

The Contractor agrees to notify the issuing jurisdiction of those entities that wish to use any contract resulting from this solicitation and will also provide usage information, which may be requested. The Contractor will provide the copy of the solicitation and resultant contract documents to any requesting jurisdiction or entity.

**Contract Agreement**

Any jurisdiction or entity using the resultant contract (s) may enter into its own contract with the successful Contractor (s). There shall be no obligation on the party of any participating jurisdiction to use the resultant contract (s). Contracts entered into with a participating jurisdiction may contain general terms and conditions unique to that jurisdiction Including, by way of illustration and not limitation, clauses covering minority participation, non-discrimination, indemnification, naming the jurisdiction as an additional insured under any required Comprehensive General Liability policies, and venue.



**Metropolitan Washington Council of Governments Rider Clause  
Invitation For Bid 9755.1, NEW EMERGENCY ELECTRICAL GENERATING SYSTEM**

	Yes	No		Yes	No		Yes	No
Alexandria, Virginia			Gaithersburg, Maryland			Rockville, Maryland		
Alexandria Public Schools			Greenbelt, Maryland			Spotsylvania County		
Alexandria Sanitation Authority			Harford County			Spotsylvania County Gov & Schools		
Annapolis City			Harford County Schools			Stafford County, Virginia		
Anne Arundel County			Howard County			Takoma Park, Maryland		
Anne Arundel School			Howard County Schools			Upper Occoquan Service Authority		
Arlington County, Virginia			Herndon, Virginia			Vienna, Virginia		
Arlington County Public Schools			Leesburg, Virginia			Washington Metropolitan Area Transit Authority		
Baltimore City			London County, Virginia			Washington Suburban Sanitary Commission		
Baltimore County Schools			Loudoun County Public Schools			Winchester, Virginia		
Bladensburg, Maryland			Loudoun County Water Authority			Winchester Public Schools		
Bowie, Maryland			Manassas City Public Schools					
Carroll County			Manassas Park, Virginia					
Carroll County Schools			Maryland DGS Purchasing					
Charles County Government			Maryland-National Capital Park & Planning Commission					
City of Frederickburg			Metropolitan Washington Airport Authority					
College Park, Maryland			Metropolitan Washington Council of Government					
District of Columbia Government			Montgomery College					
District of Columbia Water & Sewer Auth.			Montgomery County, Maryland					
District of Columbia Public Schools			Montgomery County Public School					
Fairfax, Virginia			Northern Virginia Community College					
Fairfax County, Virginia			Prince George's Community College					
Fairfax County Water Authority			Prince George's County, Maryland					
Falls Church, Virginia			Prince George's Public Schools					
Fauquier County Schools & Government			Prince William County, Virginia					
Frederick, Maryland			Prince William County Public Schools					
Frederick County, Maryland			Prince William County Service Author					

**AT VARIOUS LOCATIONS Cont.**

**BIDDER'S AUTHORIZATION TO EXTEND CONTRACT:**



**MONTGOMERY COUNTY PUBLIC SCHOOLS**  
**Procurement Unit**  
**45 West Gude Drive, Suite 3100**  
**Rockville, MD 20850-9999**  
**General Stipulations and Instructions To Bidders**

**I. Invitation For Bid**

The Board of Education of Montgomery County Maryland, herein after referred to as The Board of Education, will receive sealed proposals until the date and time indicated on the cover of the Invitation For Bid. Bids must be delivered to Montgomery County Public Schools, Procurement Unit, 45 West Gude Drive, Suite 3100, Rockville, Maryland 20850, and be received and stamped prior to the bid opening. Bids may be delivered in person, but delivery to the mailroom or lobby does not validate the time of receipt. The respondent shall assume full responsibility for timely delivery of the bid, whether by the U.S. Postal Service or by any other carrier. Bids received after the designated time for the receipt of solicitations will be returned unopened. Bids must be delivered in sealed opaque envelopes. Envelopes shall be clearly marked on the outside lower left corner with the bid number and bid opening date and time.

**II. Intent**

These specifications are intended to cover the furnishing and delivery of said materials, supplies, or services as hereinafter shown to any or to each of the various public schools, offices, or to any designated warehouse or warehouses in Montgomery County, Maryland, whichever is specified, in quantities to be determined subsequent to the bid opening.

**III. Right To Cancel Or Reject Bids**

- A. The Board of Education reserves the right to cancel any contract if, in its opinion, there is a failure at any time to perform adequately the stipulations of this Invitation For Bid, or if the general conditions and specifications which are attached and made part of this bid are not fulfilled, or if in any case there is any attempt to willfully impose upon the Board of Education materials or products or workmanship which are in the opinion of the Board of Education of an unacceptable quality. Any action taken in pursuance of this latter stipulation shall not affect or impair any rights or claims of the Board of Education to damages for the breach of any covenants of the contract by the contractor. The Board of Education also reserves the right to reject the bid of any bidder who has previously failed to perform adequately after having once been awarded a prior bid for furnishing materials or services similar in nature to those mentioned in this bid.
- B. The Board of Education reserves the right to reject any or all bids in whole or in part; to make partial awards; to waive any irregularity in any quotation; to increase or decrease quantities if quantities are listed in the bid; to reject any bid that shows any omissions, alterations of form, and additions, conditions, or alternate proposals not called for; and to make any such award as is deemed to be in the best interests of the Board of Education.
- C. All items furnished must be completely new and free from defects. No others will be accepted under the terms and intent of this bid.

**IV. Right To Purchase In The Open Market**

Should the contractor fail to comply with the conditions of this contract or fail to complete the required work within the time stipulated in the contract, The Board of Education reserves the right to purchase in the open market, or to complete the required work, at the expense of the contractor or by recourse to provisions of the faithful performance bond if such bond is required under the conditions of the bid.

**V. Failure To Furnish Item(s)**

Should the contractor fail to furnish any item or items, or to complete the required work included in this contract, The Board of Education reserves the right to withdraw such items or required work from the operation of this contract without incurring further liabilities on the part of the Board of Education.

**VI. Employer Information Report EEO-1**

The Board of Education requires that each successful bidder be liable for compliance with the provisions of Title VII of the Civil Rights Act of 1964. In order to fully comply with Title VII, a company must file Employer Information Report EEO-1 with the Joint Report Committee, 1800 G Street, NW, Washington, D.C. 20036. Only companies that fall within the following categories are required to file the Employer Information Report EEO-1:

The entire company has at least 100 employees on the payroll. The company is affiliated through centralized ownership and/or centralized management, and the group legally constitutes a single enterprise employing a total of 100 or more employees. If your company has already filed an EEO-1 by virtue of supplying materials or services under Federal Government Contracts, it is necessary to submit only a copy of your most recent EEO-1 report to the Procurement Unit. If you are filing a report for the first time, send a copy of EEO-1 to the Procurement Unit. Please note that purchase orders will not be issued to companies that fall into the above categories until proof of EEO-1 reporting has been received.

**VII. Preparation Of Bid**

Bids must be submitted on the copy provided. Bidders may wish to reproduce and retain one copy for its files. Bids must be signed by an authorized representative of the company submitting a bid. It is the intent of this solicitation that should a given bid be accepted, it will automatically become the contract. Notification of the bid award will be made by letter. Bidders shall submit its bids and specifications on the appropriate specification sheets that show the schedule of items to be purchased. Bidders may attach a letter of explanation to its bid if it so desire.

Prices quoted shall not exceed the prices established under any governmental price control regulations. Bidders will be required if requested by The Board of Education, to furnish satisfactory evidence that they are qualified as manufacturers or dealers in the items listed and have a regularly established place of business. An inspection of any bidder's place of business may be made to determine the bidder's ability to perform.

**VIII. Discounts**

The Board of Education reserves the right to consider discounts in computing the bid.

**A. Trade Discounts**

All prices offered must be the lowest net price after trade discounts have been considered. Bids offering a percentage off list prices will not be accepted unless: (1) specifically requested in that manner; (2) two copies of the referenced price list accompany the bid.

**B. Payment Discounts**



Prompt payment discounts are solicited and will be treated as follows:

- (1) Unless specifically stated otherwise, discounts offered which allow a minimum of twenty (20) days to qualify will be deducted from prices offered in the bid for the purpose of determining the lowest price offered.
- (2) Discounts offering less than twenty (20) calendar days will not be deducted from price offered for the purpose of determining the lowest price, but will be taken if payment is made within the discount period.

#### **IX. "Or Equal" Interpretation**

Unless the specifications and/or conditions state a specific brand and substitutions will not be considered, the Board of Education will consider other brands or the product of other manufacturers as long as the product meets the same specifications, standards, and quality of the material being solicited through the bid. On all such bids the bidder shall indicate clearly the product on which it is bidding and shall supply sufficient data on its own letterhead to enable an intelligent comparison to be made with the particular brand or manufacturer specified.

Whenever the specifications indicate a product of a particular manufacturer, model, or brand and in the absence of any written statement to the contrary by the bidder, the bid will be interpreted as being for the exact brand, model, or manufacturer specified, together with all accessories enumerated in the specifications.

#### **X. Consideration of Prior Service**

Awards on this bid will be made after consideration has been given to any previous performance for The Board of Education as to quality of service and/or merchandise and with regard to the bidder's ability to perform should it be awarded the bid.

#### **XI. Delivery**

The bidder agrees to furnish and deliver during the period of the contract the items and articles which may be awarded to the bidder in such amounts and quantities within the terms of the contract. **All Deliveries Must Be Prepaid FOB Destination, And In No Case Will Shipments Collect Or Sidewalk Deliveries Be Accepted.** Bidders shall uncrate, completely assemble, and set in designated place all equipment and furniture. All delivery cost shall be included in the bid unit price.

#### **XII. Packing Slips And Delivery Tickets**

All materials delivered on this contract shall be packed in a substantial manner in accordance with accepted trade practices. No charges may be made over and above the bid price for packaging or for deposits on containers. All deliveries shall be accompanied by delivery tickets or packing slips. Tickets shall contain the following information for each item delivered: the quantity, bid number, and the name of the contractor.

#### **XIII. Invoices**

Payment depends on receipt of a proper invoice and satisfactory contract performance. All invoices are to be transmitted to the Division of Controller at:

Division of Controller  
45 West Gude Drive, Suite 3200  
Rockville, MD 20850-9999

Every invoice must include the following information:

- A. Name and address of the contractor
- B. Taxpayer identification number
- C. The purchase order number
- D. An invoice number
- E. Bid number if applicable
- F. The ship to address
- G. Line item description, quantity, unit of measure, unit price, and extended price as stated on the purchase order

#### **H. Shipping and payment terms if not a bid item**

When a discount for payment is authorized and taken; it will be made to the contractor as close as possible to, but not later than, the end of the discount period. Prices quoted shall not include federal excise or state sales and use taxes. Exemption certificates will be furnished upon request. Contractor inquiries concerning payment may be made to [accounts payable@mcpsmd.org](mailto:accounts payable@mcpsmd.org).

#### **XIV. Bid Security**

If bid security is required, it must be payable to: "Montgomery County Board of Education."

Such bid security will be returned to all except the successful bidder(s) within five business days after awards have been made. The bid security of the successful bidder(s) will be returned upon receipt of the performance bond if such bond is required under the terms of the award. If no award is made within 60 days after the date of the opening of the bids, bid security will be returned to any bidder upon demand of the bidder at any time after the 60-day period so long as it have not been notified of the acceptance of its bid. Written notification of the acceptance of any bid will be made to the successful bidder(s).

#### **XV. Performance Bonds**

If required, the successful bidder or bidders on this bid must furnish a performance bond in the amount indicated in the bid document, made out to Montgomery County Board of Education and prepared on an approved performance bond form as security for the faithful performance of its contract. The performance bond shall be submitted within ten business days of the notification that the bid has been awarded. The surety thereon must be such surety company or companies as are acceptable to The Board of Education and as are authorized to transact business in the State of Maryland. Attorneys in fact who sign bid bonds must file with each bond a certified copy of its power of attorney to sign said bonds. Should the bidder fail or refuse to furnish the required performance bond within ten business days after notification the bidder shall pay to The Board of Education as liquidated damages for such failure or refusal an amount in cash equal to the security deposited with its bid.

#### **XVI. Provision For Municipal Offices**

Each bidder agrees when submitting its bid that it will make available to every office and department of the Montgomery County Government the bid prices submitted on this bid should any such department or office wish to take advantage of the bid prices submitted to The Board of Education.

#### **XVII. Product Testing During Time of Contract**

Material delivered on any contract resulting from this Invitation For Bid may be tested for compliance with the specification stipulated herein. Any shipment failing to fully meet or comply with the specification requirements will be promptly rejected.

The cost of testing a representative sample of an order or shipment for acceptance shall be borne by the Board of Education except if the order or shipment is rejected for failure to meet the requirements of the specification. In case of failure to meet the requirements of the specification the cost of testing will be charged to the contractor.

#### **XVIII. Safety Standards**

All work performed and all items supplied shall be in compliance with applicable federal and state safety standards. (OSHA-MOSHA). Material Safety Data Sheets shall be included in all shipments.

#### **XIX. General Guaranty**

The contractor agrees to:

- A. Save the Board of Education, its agents, and employees harmless from liability of any nature or any kind for the use of



any copyrighted or uncopyrighted composition, secret process, patented or unpatented invention, article, or appliance furnished or used in the performance of the contract of which the contractor is not patented assignee, licensee, or owner.

- B. Protect the Board of Education against latent defective material or workmanship and to repair or replace any damages or marring occasioned in transit or delivery.
- C. Furnish adequate protection against damage to all work and to repair damages of any kind, to the building or equipment, to its own work or to the work of the contractors for which it or its workers are responsible.
- D. Pay for all permits, licenses, and fees and give all notices and comply with all laws, ordinances, rules, and regulations of the Board of Education and of the State of Maryland.

## **XX. Indemnity**

The contractor shall indemnify, keep, and save harmless the Board of Education, its agents, officials, and employees against all injuries, death, loss, damages, claims, patent claims, suits, liabilities, judgments, costs and expenses, which may in any way occur against them in consequence of the granting of this contract or which may in any way result therefrom, whether or not it shall be alleged or determined that the act was caused through negligence or omission of the contractor or its employees, except to the extent of the negligence of the Board of Education, its agents, officials and employees. The contractor shall, at its own expense, appear, defend, and pay all charges of attorneys and all costs and other expenses arising therefrom or incurred in connection therewith; and if any judgment shall be rendered against the Board of Education in any such action based on the actions and/or negligence of the contractor, its agents and employees, the contractor shall at its own expense satisfy and discharge the same. Contractor expressly understands and agrees that any performance bond or insurance protection required by this contract, or otherwise provided by the contractor, shall in no way limit the responsibility to indemnify, keep, and save harmless and defend the Board of Education as herein provided.

## **XXI. Insurance**

The contractor shall maintain Comprehensive Business Insurance for protection from claims under the Workmen's Compensation Act, claims for damage because of bodily injury, death, or property damage to others, including employees of the Board of Education; and claims for damages arising out of the operation of motor vehicles, which may arise during the performance of the contract whether caused by the contractor or by any subcontractor or anyone directly or indirectly employed by either of them. The contractor shall also maintain product liability insurance. The aforementioned insurance shall cover the duration of the contract period, including all periods of the time and all places where work is performed under an expressed or implied warranty. The limits of such liability insurance for each occurrence shall be equal to or greater than \$500,000 for Bodily Injury and \$100,000 for Property Damage. The certificate on the insurance, indicating coverage for the term of the contract, shall be made in favor and provided to The Board of Education prior to commencement of the contract. A company duly licensed by the Maryland Insurance Commissioner and qualified to sell insurance in Maryland shall issue all insurance policies.

## **XXII. Inspection Of Premises**

Before submitting a bid for any construction or installation work in any building or on the premises of the Board of Education, the bidder should carefully examine the premises and upon submitting its bid will be considered to have examined the premises, building, or buildings where the work is to be done. For any work or installation requiring the use of labor, the successful bidder before starting work must provide sufficient evidence of insurance showing that it is adequately covered for Workmen's Compensation and Public Liability insurance.

## **XXIII. Patents**

The contractor shall hold and save the Board of Education, its officers, agents, servants, and employees harmless from liability of any nature or kind, including costs and expenses for or on account of any patented or unpatented inventions, articles, process, or appliance manufactured or used in performance of this contract including its use by Montgomery County, unless otherwise specifically stipulated in this contract.

## **XXIV. Samples And Catalog Cuts**

### **A. Requirements and Delivery**

Sample requirements and sample delivery stipulations are indicated in the bid document. Further details concerning samples may also be indicated in the detailed specification portion of the invitation. Bidders shall make all arrangements for delivery of samples to location indicated.

### **B. Sample Identification**

All sample packages shall be marked "Samples" and each sample shall bear the name of the bidder, item number, and bid number and shall be carefully tagged or marked in a substantial manner. Failure of the bidder to clearly identify samples as indicated may be considered sufficient reason for rejection of its bid.

### **C. Testing or Comparing Samples**

Samples are requested for the purpose of testing or comparing with detailed specifications. Therefore, The Board of Education reserves the right to retain or destroy the articles or materials submitted as samples for the purpose of testing. Accordingly, The Board of Education shall be free from any change or claim on the part of the bidder or contractor if any articles or materials furnished as samples are lost or destroyed. Materials such as food may be tested from the raw, uncooked, baked, or canned sample being submitted at the time of bid opening or subsequent to bid opening. Food tests shall consider specification factors such as contents, weight, size, taste, texture, appearance, uniformity of color, and defects, if any.

### **D. Retention and Removal of Samples**

The samples submitted by bidders on items on which it have received an award will be retained by The Board of Education until the delivery of contracted items is completed and accepted. Bidders whose samples are retained will be notified when its samples may be removed. Samples on which bidders are unsuccessful must be removed as soon as possible but not more than 15 calendar days after notification that the award has been made by The Board of Education. The Board of Education will not be responsible for such samples if not removed by the bidder within 15 calendar days after the notification of award has been made.

### **E. Sample Quantities**

Samples are required in the exact packaging and size as stated in the item description unless otherwise indicated in the bid document or it is determined that a smaller quantity is sufficient for adequate testing.

### **F. Descriptive Literature**

All bidders are required to furnish with the bid proposal a brochure, properly bound and labeled, showing full illustrations and specifications on each item offered, if bidding other than specified; or if specifically requested. These cuts and specifications are to be arranged and labeled with the item number in the same sequence as the items appear in the specifications and attached on separate pages of a brochure. The cover of the brochure shall contain:

1. Vendor's name, address, and phone number
2. Bid number

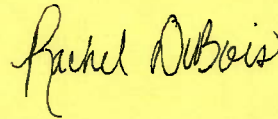
## **XXV. Time of Completion**

The Board of Education reserves the right to revise the starting and completion dates for delivery and installation of equipment to new schools and additions as stated below if the bid is wholly or in part for the furnishing of new schools and additions to existing buildings.



At least 60 days prior to the date scheduled for delivery and installation for each project, the Board of Education will notify the contractor whether or not any change will be required in the dates for the beginning and completion of delivery. The right is reserved to specify beginning dates and completion dates two weeks earlier than listed above or to postpone the beginning and completion dates for not more than 30 days later than the dates as listed. These changes in delivery dates, if any, for new schools and additions to older buildings will be applicable to individual projects as specified and not to all projects as a whole. The estimated dates on which deliveries may be begun and which time deliveries and installations must be completed have been estimated as carefully as possible; and if any change is required by circumstances beyond the control of the Board of Education, the revised delivery dates as established by the procedures outlined immediately above will become the definite schedule for completion of the contract as if it had been set in the original schedule as outlined.

Should any bidder have any question as to the intent or meaning of any part of this bid, it must contact the undersigned to receive a written reply before submitting its bid. Inquires must be submitted in writing no later than four business days prior to bid opening date.



Rachel C. Dubois  
Director, Department of Materials Management

#### **XXVI. Guarantee**

The contractor shall unconditionally guarantee the materials and workmanship on all equipment furnished by it for a period of one year from date of acceptance of the items delivered and installed. If, within the guarantee period, any defects or signs of deterioration are noted which in the opinion of The Board of Education are due to faulty design and installation, workmanship, or materials, upon ratification, the contractor, at its expense, shall repair or adjust the equipment or parts to correct the condition; or it shall replace the part or entire unit to the complete satisfaction of the Board of Education. These repairs, replacements, or adjustments shall be made only at such times as will be designated by the Board of Education as least detrimental to the instructional programs.

#### **XXVII. Signature To Bids**

Each bid must show the full business address and telephone number of the bidder and be signed by the person or persons legally authorized to sign contracts. All correspondence concerning the bid and contract, including Notice of Award, Copy of Contract, and Purchase Order, will be mailed or delivered to the address shown on the bid in the absence of written instructions from the bidder or contractor to the contrary. Bids by partnerships must be signed with the partnership name by one of the members of the partnership or by an authorized representative, followed by the signature and designation of the person signing, who shall also state the names of individuals composing the partnership. Bids by corporations must be signed with the name of the corporation, followed by the signature and designation of the officer having authority to sign. When required, satisfactory evidence of authority of the officer signing in behalf of the corporation shall be furnished. Anyone signing the bid as agent shall file satisfactory evidence of its authority to do so.

#### **XXVIII. Errors In Bids**

Bidders, or its authorized representatives, are expected to fully inform themselves as to the conditions, requirements, and specifications before submitting bids; failure to do so will be at the bidder's own risk and the bidder cannot secure relief on the plea of error. Neither law nor regulations make allowance for errors either of omission or commission on the part of the bidders.

#### **XXIX. Resolution and Disputes**

Bidders who have any concerns regarding the recommended awards of this solicitation should promptly contact the buyer in the Procurement Unit before the scheduled Board action. Any concerns that cannot be resolved informally with the buyer should be addressed to the senior buyer of the Procurement Unit. The senior buyer of the Procurement Unit shall attempt to resolve, informally, all protests or complaints regarding bid award recommendations. Any formal protest must be filed with the senior buyer of the Procurement Unit within seven (7) calendar days of the date of the pre-award notice.

#### **XXX. Inquiries**



**MONTGOMERY COUNTY PUBLIC SCHOOLS  
PROCUREMENT UNIT  
45 West Gude Drive, Suite 3100  
Rockville, MD 20850-9999**

**SPECIAL INSTRUCTIONS TO VENDORS FOR MAILING BIDS**

**Bids must be delivered in sealed, opaque envelopes, and labeled clearly as follows:**

**SAMPLE BID RESPONSE ENVELOPE**

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(Return Address)

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**BID ENVELOPE**

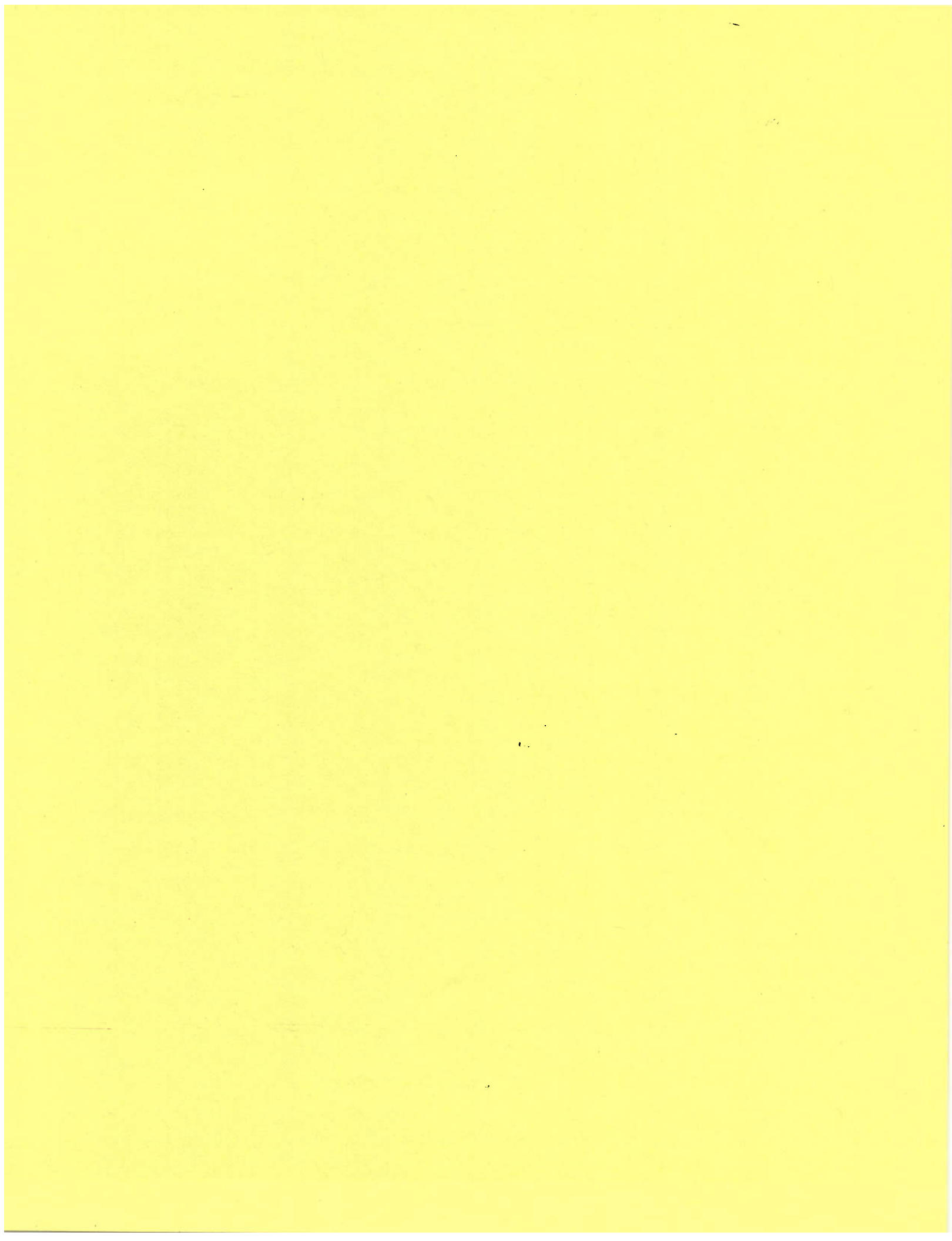
**TO BE DELIVERED TO**

**Procurement Unit  
MONTGOMERY COUNTY PUBLIC SCHOOLS  
45 West Gude Drive, Suite 3100  
Rockville, MD 20850-9999**

**BID NO. \_\_\_\_\_  
BID NAME \_\_\_\_\_  
OPENING DATE \_\_\_\_\_  
OPENING TIME \_\_\_\_\_**

---

Vendor name and address must appear on the upper left hand corner of the bid envelope.  
The specific bid number, opening date, and time must appear in the lower left hand corner of the bid envelope.  
It is suggested that vendors utilize a tracking service to insure prompt delivery.





**Department of Materials Management  
Procurement Unit  
MONTGOMERY COUNTY PUBLIC SCHOOLS  
45 West Gude Drive, Suite 3100  
Rockville, Maryland 20850**

**INVITATION FOR BID #9755.1  
NEW EMERGENCY ELECTRICAL GENERATING SYSTEM  
AT VARIOUS LOCATIONS**

**GENERAL CONDITIONS AND SPECIFICATIONS**

**I. GENERAL CONDITIONS**

**A. SCOPE**

The work includes all required design/build tasks for the furnishing and installation of new emergency electrical generating systems to include all associated wiring, conduit, disconnects, controls, and appurtenances as required. The installation includes, but is not limited to, the generator system(s), controls, conduits, gas meters split, upgrade and line connection, general construction type work to include general site restoration, provide and install all emergency lighting circuits, removing and disposing of existing emergency lighting (battery packs), removing and disposing of existing generator and all associated wiring, controls and piping as required, etc. when the project is finished, it shall be complete and coordinated whole, and ready for satisfactory service at the following locations:

**Dr. Charles Drew Elementary School, 1200 Swingingdale Drive, Silver Spring, Maryland 20905  
Tel: 301-989-6030**

**Monocacy Elementary School, 18801 Barnesville Road, Dickerson, Maryland 20842  
Tel: 240-740-5790**

**Summit Hall Elementary School, 101 West Deer Park Road, Gaithersburg, Maryland 20877  
Tel: 301-284-4150**

**Walt Whitman High School, 7100 Whittier Blvd., Bethesda, Maryland 20817  
Tel: 240-740-4800**

**B. INTENT**

1. It is the intention of these specifications to secure all-inclusive prices, to fully cover all required equipment, services, materials and labor for the new emergency electric generating systems installation and new emergency lighting circuits and other circuits as identified herein. **Successful contractor(s) will be required to submit the Asbestos Free Verification form as applicable and required herein. See General Conditions Section K and APPENDIX G.**
2. **Bid prices offered shall be all-inclusive including, but not limited to, labor, equipment and miscellaneous materials to satisfy all specification requirements. All costs shall**

**be included in the bid prices submitted.** All design task and installation work shall be performed in accordance with the latest applicable laws, codes and regulations of the various regulatory bodies of the Federal Government, State of Maryland, and all other boards or departments having jurisdiction such as, but not limited to, the National Electrical Codes, etc. These laws, regulations and standards shall further be considered a part of these specifications and conditions. The Contractor shall furnish and install any additional items required by the same, whether or not particularly shown or specified.

C. **AWARD**

1. This solicitation does not commit MCPS to award any contract or to pay any costs incurred in the preparation of a response. It is the intention to award this contract to the bidder(s) submitting the most favorable offer with consideration being given to any previous performance for the MCPS Board of Education as to quality of service, acceptable merchandise, and with regard to the bidder's ability to perform should it be awarded the contract. However, the MCPS Board of Education reserves the right to make awards according to the best interests of the Board of Education of Montgomery County, Maryland. In addition, the Board reserves the right to remove or add additional items to the specifications as our requirements change.
2. Wherever the term "provide" is used, it shall mean, "Furnish and install in place, complete in all details".

D. **SITE INSPECTION**

**The successful Contractor shall inspect the work sites before bidding. Please call the main office to schedule a time to visit.** The Contractor must report to the main office to contact the Building Services Manager prior to performing their inspection. The bidder shall carefully review the site location drawings and specifications before submitting their bid. Should any errors, discrepancies, or omissions be found in these specifications and/or drawings or any discrepancies found between the drawings and the physical conditions at the site, the Contractor shall notify MCPS in writing immediately. When the bid has been submitted and received, it shall be understood that the work site has been inspected and the bidder is aware of the needs and conditions under which the work is to be accomplished including, but not limited to, all work and equipment required to satisfy any and all laws, codes, regulations, etc., that are applicable. The bidder shall submit a **written report** to Ms. Julie Johnson, Buyer II, [Julie\\_E\\_Johnson@mcpsmd.org](mailto:Julie_E_Johnson@mcpsmd.org) immediately upon identifying any condition which might prevent installation of the equipment or performance of the work in the manner intended no later than four working days prior to the bid opening. Failure to do so will not relieve the successful bidder of the obligation to furnish all materials and labor necessary to fully carry out the provisions of the contract documents.

E. **SCHEDULE/RESTRICTIONS**

1. The generator system at the schools shall be operational on or before **August 19, 2022**, and be 100% completed, including but not limited to, all inspections, punch out tasks and total acceptance by MCPS by **August 22, 2022**. It is anticipated that work on site can begin after the school year ends on **June 15, 2022**, and upon securing approval from the MCPS Project Coordinator. Late charges will be deducted for failure to meet any target



dates without a written MCPS approved extension. (See “**Late Charges for Failure to Complete on Time**” under **Contract Administration**.) Some preparatory work will be allowed, such as staging material, etc., in advance of **June 15, 2022**, upon approval by the MCPS Project Coordinator. A comprehensive work schedule will be developed with the successful Contractor to satisfy the identified completion date. A purchase order issued and signed by the director of the Department of Materials Management will be the Contractor’s authorization to proceed. All work is to be totally completed on or before the stated completion date identified. This includes, but is not limited to, final inspections by MCPS staff, all cleaning tasks, punch-out work, etc.

2. Scheduling of the work must receive prior approval of the MCPS Project Coordinator. The Contractor, at their own risk, may commence any of the preparatory work (shop drawings, ordering of materials, etc.) upon receipt of a Pre-Award Notice from MCPS. Should MCPS not issue a formal award, MCPS bears no obligation for work performed by the Contractor prior to receipt of the formal award.
3. The Contractor shall take into consideration that school activities will be taking place (summer school, special activities) while work for this contract is being performed; and that no work performed by the Contractor shall disrupt normal school functions. Any traffic blockages, utility outages, etc., which may be required in the execution of the Contractor's work shall be scheduled with the MCPS Project Coordinator and will require the Contractor to perform such work at premium labor times. **The Contractor shall include allowance in bid offer, to perform project related work during off hours, including weekends, to avoid disruption to the building usage.** The intent is to have this project performed without totally closing the building during regular weekday hours as the building will be occupied with administrative staff. The Contractor shall anticipate these occurrences in their bids, and no changes in contract amount or completion date will be made for such occurrences.
4. The Contractor shall submit to MCPS during a Pre-Construction Meeting, a Contractor-prepared, detailed construction schedule for the awarded project. Contract costs for the components of the work shall be provided with the schedule.
5. The Contractor shall maintain an adequate labor force on the worksite from the start of the project until the completion in order to satisfy the schedule. MCPS expects the work to proceed uninterrupted with regards to labor and material availability. The Contractor shall inventory materials as they are received from the manufacturer and not wait until work is under way to determine if inventory is sufficient.

**F. MCPS EMERGENCY/CRISIS PROCEDURES, SHELTER/LOCKDOWN**

**Emergency/ Crisis Procedure Information**

1. In the event of an emergency/crisis incident while working in an MCPS facility, the Contractor and/or their representative(s) shall be required to adhere to the established MCPS procedures and school administrative guidelines during such an occurrence.
2. Supplied herein under **APPENDIX D**, for the Contractor’s information are the MCPS Emergency/Crisis Procedures, Shelter/Lockdown. It is the Contractor’s responsibility to

familiarize themselves and their representative(s) regarding the Shelter/Lockdown Procedures. These emergency procedures are subject to change to meet MCPS requirements.

3. The Contractor shall have at the work site, a reasonable amount of materials that will allow them to quickly secure the work area and/or secure building openings as required for the type of work being performed.

**G. WARRANTY/SERVICE/REPAIR**

1. The specifications require that the project workmanship and materials shall be guaranteed for two years. This includes but is not limited to replacement batteries, block heater, etc.
  - a. In addition, generator unit and components provided by generator manufacture shall be warrantied for a total of five (5) years. Contractor shall replace all items at no cost to MCPS.
  - b. Final payment will be made once the installation is complete and operations have been witnessed and accepted by MCPS. The warranty shall begin once the MCPS Project Coordinator has approved the Contractor's final invoice for payment.
2. Warranty shall provide for the replacement of defective parts plus installation and labor. Any warranty claim made by MCPS prior to the expiration of said warranty shall be satisfied although the warranty has subsequently expired. Failure of a bidder to provide satisfactory warranty service to MCPS will be grounds for exclusion from future bidding.

Contractor shall provide a mobile generator unit whenever the warrantied generator will be out of service for more than three (3) calendar days.

3. Upon completion of the projects, the MCPS Area Maintenance Electrical Supervisor will file any warranty claims to the Contractor.

**H. BRAND NAMES**

1. Commodity descriptions that state "Only a specified brand will be considered" are brands that have been evaluated and tested for inclusion on this bid and are the only brands acceptable at this time. **No substitutions will be accepted.** Other brands will be evaluated and tested for future projects by MCPS if materials are submitted at no cost to MCPS. Forward samples/information to Montgomery County Public Schools, Contracts Office, 45 West Gude Drive, Suite 4300, Rockville, Maryland 20850. **Testing normally requires a minimum of 60 calendar days to complete; therefore, your samples/materials for testing may be approved for future bids if the evaluation is satisfactory. This process of evaluation is intended for larger types of equipment and/or components i.e. bleachers, elevators, locker, flooring system, roofing systems, and P.A. Systems.**
2. The 60 workday evaluation process is **not intended** for the smaller system components where the term "or MCPS approved equal" is used herein. These items of a lesser dollar value such as electrical/plumbing components, switches, adhesives sealers, etc., can



quickly be evaluated by MCPS to determine if they are equal to the proto-type identified. Upon MCPS evaluation of the offered equal to term, it is determined that it is not equal to the proto-type, the successful bidder shall be required to provide the MCPS identified proto-type product.

3. The brand name, code or model number on each item being offered, even if bidding the specified brand shall be provided. If a brand and code or model number is not shown your bid may not be considered.
4. If an item specification shows code or model that has been discontinued, the bidder shall so state and indicate the current code or model number.

#### **I. DESCRIPTIVE LITERATURE**

The apparent successful bidder may be required to furnish, **within two working days** after Pre-Award Notice, sufficient detailed information regarding makes, models, design, etc., of the item(s) offered. The apparent successful bidder is required to furnish all literature properly bound and labeled, showing full instructions and detailed specifications. The literature and specifications are to be arranged and labeled in numerical sequence according to item and attached on separate pages of a brochure. Failure to submit sequentially marked descriptive literature may result in disqualification. Bidder shall show the manufacturer's code and catalog numbers of the item(s) offered. The cover of the brochure shall contain:

1. Bidder's name, address and telephone number
2. Bid number

#### **J. MANUFACTURER SELECTION**

1. **ONAN** manufacturer requirements where specified herein are used to establish the minimum acceptable level of quality and performance. Equal equipment from the MCPS approved manufacturers will be acceptable. Substitutions of equipment by manufacturers other than those specified will not be permitted.
2. The Contractor shall provide data for the major equipment as provided on the Quotation Form.
3. Installation of an approved manufacturer by MCPS shall not relieve the Contractor from the responsibility of providing MCPS with a thorough and complete installation per the specifications. Any and all equipment provided must include any required changes to piping, etc. and the Contractor's bid shall include the costs for all such work. The specifications shall govern the manner of installation and such work is subject to the approval of MCPS prior to installation. All work must be in compliance with the codes and regulations. **The Contractor shall be required to submit drawings to include and identify equipment and system for MCPS review and approval, prior to commencing work.**

4. Determination of suitable compliance with the specifications resides solely with MCPS. The MCPS Project Coordinator will evaluate all proposals/submittals and determine which is acceptable.

## K. GENERAL ASBESTOS INFORMATION

### 1. Asbestos Free Materials

**NO MATERIALS PROVIDED SHALL CONTAIN ASBESTOS!!!!** All contractors providing and/or installing any of the building materials listed below shall secure laboratory analysis confirming that materials contain NO ASBESTOS. The cost for testing shall be included in the bid prices offered. After the initial testing has been performed additional annual testing will be required thereafter or immediately upon any change in materials or manufacturers.

- |                                  |                                  |
|----------------------------------|----------------------------------|
| • Acoustical ceiling tile,       | • Mastics                        |
| • Adhesives                      | • Plaster                        |
| • Caulking                       | • Roofing System Components e.g. |
| • Fire Rated Doors               | BUR Asphalt, Felts, Cap Sheets,  |
| • Fire Board                     | Shingles, etc.                   |
| • Floor tile and sheet flooring, | • Spackle                        |
| • Folding Doors                  | • Toilet Partitions              |
| • Gypsum Panels (Drywall)        | • Window                         |
| • Insulation (All types; roof,   | • Glazing The                    |
| HVAC, piping, wall, etc.)        | laboratory                       |

performing the analysis must have received U.S. Environmental Protections Agency (EPA) accreditation and be a member of the National Voluntary Laboratory Accreditation Program (NVLAP). The contractor or the manufacturer can have the laboratory testing performed. No other form of confirmation such as Material Safety Data Sheets, manufacturer documentation, historical testing, etc. will be accepted. A list of EPA accredited laboratories can be found at <http://ts.nist.gov/standards/scopes/programs.htm>

The contractor shall provide required laboratory analysis report(s) and a completed "Asbestos Free Material Verification Form" herein (see **APPENDIX G**) **within 15 working days** after receipt of the "Pre-Award Notification" letter for each listed product required in the execution of the scope of work.

### 2. Existing Asbestos Materials

MCPS shall be responsible for all asbestos abatement tasks as may be required regarding existing material on site. Any questions, concerning asbestos materials shall be directed to John Conaway, MCPS Environmental Health Specialist at 240-740-2331.

## L. DEVIATIONS

All bids meeting the intent of the invitation will be considered for award. Bidders who are deviating from the terms, conditions, and/or specifications shall list such and explain fully on a separate sheet to be submitted with their bid. If these deviations are of a technical nature, the



bidder shall supply manufacturer's engineered description of the deviation. The absence of such a sheet shall indicate that the bidder has taken no exception and shall be held responsible for performing in accordance with the terms, conditions, and specifications as stated herein.

**M. SUBMISSION OF BIDS (Sealed Bids Only) Required Submissions**

**1. Bid Documents**

**One original and one copy of the bid are requested.** The cover page of each copy must be clearly marked original or copy. Bidders may wish to reproduce and retain an additional copy for your files.

**2. Quotation Form (Pages 1-6)**

- a. Quotations are to be entered on the Quotation Form supplied under **APPENDIX I. Faxed quotations are not acceptable. SEALED BIDS ONLY.** This solicitation shall be valid for acceptance during a period of no less than 90 days from date of opening. If there is a discrepancy between the unit cost and total unit cost, the unit cost shall prevail.
- b. **Bidder must submit a separate price for each item listed on the Quotation Form. Submission of one price for all the items without indicating a price per item shall be considered non-responsive and will invalidate your bid.** If there is a discrepancy between the unit cost and total cost, the unit cost shall prevail. Prices offered shall be valid for acceptance during a period of no less than 90 days, from date of bid opening.

**3. Bid Security**

See General Conditions, Section N. **BID SECURITY** on page 11 for requirements.

**4. Addenda/Errata**

Changes and addenda to a solicitation may occur prior to the bid opening date and time. It is the bidder's responsibility to check the MCPS website under the event calendar (<http://www.montgomeryschoolsmd.org/departments/procurement/>) or contact the Procurement Unit by fax at 301-279-3097 or by email to [Julie\\_E\\_Johnson@mcpsmd.org](mailto:Julie_E_Johnson@mcpsmd.org) to confirm that they have all addenda/errata. **Failure to acknowledge addenda/errata on the form may result in a bid being deemed non-responsive and consequently rejected.**

**Minority Business Enterprise in Public Schools**

- a. **The goal has been set for 10% MBE participation. Attachment A and B of the MBE PROCEDURE (APPENDIX B) reflecting minimum 10% MBE participation shall be submitted with your bid. If you do not submit the forms with your bid, MCPS may deem your bid non-responsive and you will not be selected for award. (See Section "II Contract Administration" for additional MBE information)**

- b. MCPS expect all bidders to make the essential effort to meet or exceed the established MBE goal for this invitation to Bid. MCPS will **NOT** grant MBE waivers without sufficient support documentation that clearly substantiates that the bidder has made a sincere good faith effort to meet the MBE requirements. There will be an extensive effort required on the part of the bidder to ensure compliance with the MBE procedures to rationalize a review of an MCPS waiver request.

5. **State of Maryland Licenses**

- a. **General Requirements:** The Contractor shall include a current **State of Maryland Construction Business License or a Maryland Home Improvement Commission License**. These are considered "TAX LIABILITY" Licenses and do not authorize a contractor to perform any trade specific work in the State of Maryland without the appropriate trade licenses as required. **NOTE: All out of state bidders must provide an out of state Maryland Construction Business or Home Improvement license.**

**Construction Business License:** This type of business license is issued through the County or Baltimore City, or the Clerks of the Circuit Court in which your business is located within the State of Maryland. Contact the **State License Bureau** <http://www.marylandtaxes.com/> or at 410-260-6240 for additional information as required.

**Maryland Home Improvement Commission License:** This type of license is issued through the State of Maryland, Department of Labor, Licensing and Regulations, Maryland Home Improvement Commission. For further information, and to locate the closest office go to [www.DLLR.state.md.us](http://www.DLLR.state.md.us) or call 410-230-6309

- b. **Contractor shall submit an existing Montgomery County Electrical and Electrical Business Licenses with bid submission.** Failure to provide an existing license may disqualify the bid submission.

6. **Certification from Manufacturer**

Contractor shall include a letter from the manufacturer stating that the firm is a manufacturer's authorized installer/representative for the brand equipment offered. Manufacturer shall submit a letter stating manufacturer shall supply specified equipment in order for contractor to complete project by specified date.

7. **Statement of Experience**

The Contractor shall provide statement of experience with the bid proposal. See "**Contract Administration Section; M Quality Assurance**" for more information. Failure to provide required documentation will disqualify bid proposal

8. **References**

See "**GENERAL CONDITIONS SECTION; P. REFERENCES**" on page 12 for more

information.

9. **List of Personnel**

Contractor shall include a complete list of full-time personnel employed by the firm who would be assigned to the contract. For individuals listed, provide resume to include their title qualifications and all applicable training licenses, etc.

10. **Contractors' Obligation Regarding Criminal Records of Individuals Assigned to Work in MCPS Facilities**

Beginning July 1, 2015, all MCPS Contracts must include the following provisions:

a. **Prohibition against assigning registered sex offenders and individuals convicted of sexual offenses, child sexual abuse, and other crimes of violence to MCPS contracts:**

Maryland Law requires that any person who enters into a contract with a county board of education "may not knowingly employ an individual to work at a school" if the individual is a registered sex offender. Under §11-722 of Criminal Procedure Article of the Maryland Code, an employer who violates this requirement is guilty of a misdemeanor and if convicted may be subject to up to five years imprisonment and/or a \$5,000.00 fine.

Effective July 1, 2015, amendments to § 6-113 of the Education Article of the Maryland Code further require that a contractor or subcontractor for a local school system may not knowingly assign an employee to work on school premises with direct, unsupervised, and uncontrolled access to children, if the employee has been convicted of, or pled guilty or nolo contendere to, a crime involving:

1. A sexual offense in the third or fourth degree under § 3-307 or § 3-308 of the Criminal Law Article of the Maryland Code or an offense under the laws of another state that would constitute an offense under § 3-307 or § 3-308 of the Criminal Law Article if committed in Maryland;
2. Child sexual abuse under § 3-602 of the Criminal Law Article, or an offense under the laws of another state that would constitute child sexual abuse under § 3-602 of the Criminal Law Article if committed in Maryland; or
3. A crime of violence as defined in § 14-101 of the Criminal Law Article, or an offense under the laws of another state that would be a violation of § 14-101 of the Criminal Law Article if committed in Maryland, including: (1) abduction; (2) arson in the first degree; (3) kidnapping; (4) manslaughter, except involuntary manslaughter; (5) mayhem; (6) maiming; (7) murder; (8) rape; (9) robbery; (10) carjacking; (11) armed carjacking; (12) sexual offense in the first degree; (13) sexual offense in the second degree; (14) use of a handgun in the commission of a felony or other crime of violence; (15) child abuse in the first degree; (16) sexual abuse of a minor; (17) an attempt to commit any of the crimes described in items (1) through (16) of this list; (18) continuing course of conduct with a child under § 3-315 of the Criminal Law Article; (19) assault in the first degree; (20) assault



with intent to murder; (21) assault with intent to rape; (22) assault with intent to rob; (23) assault with intent to commit a sexual offense in the first degree; and (24) assault with intent to commit a sexual offense in the second degree.

Each contractor is required to submit, following award of a contract, documentation confirming that its direct employees and those of any sub-contractors and/or independent contractors assigned to perform work in a MCPS school facility under the contract meet this obligation.

Additionally, the contractor must confirm that it continues to meet this obligation on an annual basis and/or when there are changes in the work-force that the contractor and/or its subcontractors use to perform the work required by the contract.

Violation of this provision is a material breach of contract for which MCPS may take appropriate action up to and including termination of the contract.

**b. Required criminal background check process for certain individuals in the contractor's workforce:**

Under recent amendments to § 5-551 of the Family Law Article of the Maryland Code, each contractor and subcontractor shall require that any individuals in its work-force must undergo a criminal background check, including fingerprinting, if the individuals will work in a MCPS school facility in circumstances where they have direct, unsupervised, and uncontrolled access to children. The term "work-force" in this and the preceding section refers to all of the contractor's direct employees, subcontractors and their employees, and/or independent contractors and their employees that the contractor uses to perform the work required by the contract.

Fingerprinting for the criminal background check may be performed by the MCPS Office of Human Resources and Development, 45 W. Gude Drive, Rockville, MD 20850, or through another service approved by MCPS. Individuals fingerprinted by MCPS will be required to provide written consent, and MCPS will maintain copies of all records for criminal background checks performed by MCPS. If the contractor uses another service approved by MCPS, the results of the criminal background check must be provided to MCPS for record keeping. A list of MCPS approved fingerprinting agencies can be found on the Procurement Unit website at <http://www.montgomeryschoolsmd.org/departments/procurement>.

The contractor must take appropriate steps to promptly follow up on information identified in the criminal background check related to the sexual offenses, child sexual abuse offenses, and crimes of violence enumerated above, as well as any information regarding offenses involving distribution of drugs or other controlled substances, or any other criminal information identified by MCPS as warranting further explanation insofar as it may significantly affect the safety and security of MCPS students. If, after following up, the contractor believes that the individual is qualified and should be assigned to work (or continue to work) in a MCPS school facility, then the contractor will provide a written summary to MCPS

justifying its recommendation. MCPS will rely on the contractor's summary to determine whether to accept the contractor's recommendation, and the contractor will be responsible for any consequences of a material misrepresentation in its written summary.

Once the contract is awarded, the contractor is responsible for implementing the background check process. An individual in the contractor's work-force may not begin work in a MCPS school facility on an assignment where the individual will have direct, unsupervised, and uncontrolled access to children, until: (a) the background check results for that individual have been received by MCPS; (b) the contractor certifies to MCPS that the individual has received training and/or reviewed informational materials, as appropriate, regarding recognizing, reporting, and preventing child abuse and neglect, consistent with the content provided in training for MCPS employees; and (c) the individual obtains a MCPS identification badge. The badge will be issued by the MCPS Department of Safety and Security, 850 Hungerford Drive, Room 131, Rockville, MD 20850. Appointments are made by calling 301-279-3066. The contractor will be required to return all badges at the conclusion of the contract.

The criminal background check and badging process will be at the contractor's expense.

Violation of this provision is a material breach of contract for which MCPS may take appropriate action up to and including termination of the contract.

#### N. **BID SECURITY**

1. **Bids in excess of \$50,000.00 shall be accompanied by a Bid Security in the form of Bid Bonds (A.I.A. Document A310), in the amount of 10% of the bid, naming Montgomery County Board of Education as Obligee.** A certified check in the amount of 10% of the bid will be accepted in lieu of the Bid Bond. Where certified check is furnished, the Contractor shall attach the following statement from a **Maryland licensed bonding company** signed by an authorized representative of the bonding company:

"As surety for the above-named Contractor, (name of bonding company) hereby agrees to furnish bonds as required by the specifications, on behalf of the Contractor, in the event that such firm be the successful bidder for this project."

2. Bid bonds will be returned upon request to all except the three lowest bidders. After 60 days from the bid opening date, the three lowest bidders can request the return of bid bonds if they have not been notified of the acceptance of their bid.
3. If the successful bidder withdraws their bid or fails to execute and deliver to MCPS the contract and the required bonds within five working days after receipt of the Bid Award, the Bid Security shall be forfeited to MCPS as the result of such failure. **Note: Failure to submit the bid security with the bid proposal may disqualify your submission.**

**O. Award Criteria**

1. Conformance to specifications and completeness of bid submission
2. Ability to perform
3. Price
4. Past performance (ability to complete project by completion date)
5. MBE compliance
6. Employees with MCPS badges

**P. REFERENCES**

Bidders shall provide three references with their bid submission. The references shall have company name, contact person, address and phone number of three current customers for which a contract for similar size and type of project has been provided. If the reference information is not accurate and MCPS cannot contact the person(s) named then your bid may not be considered. MCPS may request additional references. **Note: ALL BIDDERS must provide references including bidders currently engaged in business with MCPS. Failure to provide required documentation will disqualify bid proposal.**

<u>Company Name &amp; Address</u>	<u>Contact Person</u>	<u>Phone Number</u>	<u>Contact Number</u>
1. _____ _____			
Email: _____			
2. _____ _____			
Email: _____			
3. _____ _____			
Email: _____			

**Q. SPECIAL CONDITIONS**

1. Audit Provisions – MCPS shall have the right to examine the successful bidder records pertaining to work performed under the contract to determine and verify their compliance with all contractual conditions. MCPS shall be granted access to such records at all reasonable times during the contract period and for three years thereafter.
2. Contingent Fee – The successful bidder hereby represents that they have not retained anyone to solicit or secure this contract from MCPS upon an agreement or understanding



for a commission, percentage, brokerage or contingent fee, except for bona fide employees or bona fide established commercial selling agencies maintained by the person so representing for the purpose of securing business, or any attorney rendering professional legal services consistent with applicable canons of ethics.

3. Assignments – Neither this contract nor any interest therein nor claim thereunder shall be assigned or transferred by the successful bidder except as expressly authorized in writing by MCPS and no contract shall be made by the successful bidder with any other party for furnishing any of the work or services herein contracted for without the written approval of MCPS.
4. Disputes – Any dispute concerning a question of fact arising under this contract shall be disposed of by written agreement between the Contractor and the MCPS Contracting Officer. Pending final decision of a dispute hereunder, the Contractor shall proceed diligently with the contract performance

**R. EMARYLAND MARKETPLACE ADVANTAGE**

Maryland law requires local and state agencies to post solicitations on eMaryland Marketplace Advantage. Registration with eMaryland Marketplace is free. It is recommended that any interested supplier register at <https://emma.maryland.gov/>, regardless of the award outcome for this project as it is a valuable resource for upcoming bid notifications for municipalities throughout Maryland.

**S. INQUIRIES**

Inquiries regarding this solicitation must be submitted **in writing** to Mrs. Julie Johnson, Buyer II, Montgomery County Public Schools, 45 West Gude Drive, Suite 3100, Rockville, Maryland 20850, fax number 301-279-3173 or by email to [Julie\\_E\\_Johnson@mcpsmd.org](mailto:Julie_E_Johnson@mcpsmd.org) with a copy to [procurement@mcpsmd.org](mailto:procurement@mcpsmd.org). Questions must be received no later than four business days prior to bid opening in order for the bidder to receive a reply prior to submitting its bid. The MCPS Board of Education will not be responsible for any oral or telephone explanations or interpretations. Bidder contact with any other MCPS employee regarding this solicitation until the contract is awarded by the MCPS Board of Education will be considered by MCPS as an attempt to obtain an unfair advantage and result in non-consideration of its bid. The MCPS Procurement Unit web site address is <https://www.montgomeryschoolsmd.org/departments/procurement/>.

Subsequent to the award, if the Contractor finds any discrepancy or omission and has questions of MCPS's intent, prior to performing work, they shall notify the MCPS Project Coordinator **in writing** to resolve and receive clarification, with copies to Ms. Julie E. Johnson, Buyer II and the MCPS Capital Improvements Contracting Supervisor.

## II. CONTRACT ADMINISTRATION

A. PRE-CONSTRUCTION MEETING

1. The MCPS Contracts Office reserves the right to convene a meeting with the apparent low bidder prior to awarding a contract. The purpose of this meeting is to afford all parties an opportunity to discuss any aspects of project and contract execution, which may be of concern for the successful and timely completion of the project.
2. Issues raised during this meeting, which cannot be resolved to MCPS satisfaction, will be cause to reject the apparent low bid and to consider the next lowest bidder as the successful offeror.

B. CONTRACT SECURITY

1. Security may be in the form of Certified Cashier's or Bank Treasurer's Check **OR** Bonds (AIA Documents A-311, A-312, or similar). The bonding firm must be licensed to do business in the State of Maryland. The Performance Bond shall be executed using the modified A312, Payment and Performance Bonds. The Payment Bond shall be executed using AIA Document A312, Amended Payment Bond.
2. Upon receipt of the Award Notification letter, the successful bidder shall deliver to MCPS **within five working days** security requirements, which are:

**Performance and Payment Bonds** – Bonds are required for contracts in excess of \$50,000.00. The Contractor shall provide a bond in the amount of the total MCPS accepted proposal cost.

3. If bond(s) are to be used for contract/proposal security, the cost of the bond(s) shall be borne by MCPS and shall be included in all proposal exceeding \$50,000.00 MCPS will pay the direct cost for said bond(s). **Note: Failure to supply the Contract Securities as specified will be considered a contract violation and shall be grounds for contract cancellations.**

C. POST BID SUBMISSIONS

1. In addition to license required with the bid response, the apparent low bidder may be required to supply **within 48 hours** after MCPS requests, applicable business and contractor's licenses technician certification from manufacturer, master licenses for trades appropriate for work to be performed, and/or company financial statements, etc., as required to allow MCPS contractor evaluation. **Failure to supply a copy as specified may disqualify your bid proposal.**
2. **Sub-Contractors**
  - a. The successful bidder shall supply a complete list of all sub-contractors for evaluation by MCPS. This list must be submitted within two workdays after MCPS makes the request. **Failure to do so will be grounds for termination of our bid.** The Contractor shall be responsible for assuring that all proposed Sub-Contractors are in good standing with MCPS.

- b. MCPS shall notify the Contractor **in writing** if, after due investigation, there is reasonable objection to any of the proposed Sub-Contractors. Failure of MCPS to make objection to any proposed Sub-Contractor shall constitute notice of no objection. Each Sub-Contractor may be required to furnish to MCPS, in duplicate, proof of their financial stability and experience to perform the particular work for which they will be engaged. All contractual agreements between the Contractor and their Sub-Contractors shall be written and unamended on the Standard Form of Agreement between the Contractor and Sub-Contractor, AIA Document A401 (most recent Edition). Upon request the Contractor shall supply copies of this contract to MCPS **within five workdays**.
  - c. MCPS acceptance of Sub-Contractors in no way relieves the Contractor from being responsible for the total and complete performance of the work for the project; i.e., failure of the Sub-Contractors to satisfactorily perform the work in a timely fashion is the Contractor's responsibility and not that of MCPS.
  - d. All work must be performed by a bona-fide licensed trade person.
3. **Minority Business Enterprise (MBE) in Public Schools**
- a. **The goal has been set for 10% MBE participation. Attachment A and B of the MBE Procedure (APPENDIX A) reflecting minimum 10% MBE participation shall be submitted with your bid. *If these forms are not submitted with your response, your response may be deemed non-responsive and not considered for award. (See Section "II Contract Administration" for additional MBE information).***
  - b. **MCPS expect all bidders to make the essential effort to meet or exceed the established MBE goal for this invitation to Bid. MCPS will NOT grant MBE waivers without sufficient support documentation that clearly substantiates that the bidder has made a sincere good faith effort to meet the MBE requirements. There will be an extensive effort required on the part of the bidder to ensure compliance with the MBE procedure to rationalize a review of an MCPS waiver request.**
4. **Submit Evidence of Insurance**
- a. **Insurance**  
  
See Article XXI of the General Stipulations and Instructions to Bidders. The successful Contractor shall submit an actual certificate of insurance made in favor of MCPS within five workdays after an Award Notification letter has been issued to the successful bidder.
  - b. **Additional Insurance**  
  
The Montgomery County Board of Education shall be named as an additional insured on all liability policies.



- c. Policy Cancellation/Certificate Holder
  - 1) Sixty days written notice of cancellation or material change in any of the policies is required.
  - 2) The Procurement Unit, Montgomery County Board of Education shall be the insurance certificate holder.

## 5. Invoicing

- a. Bidder shall submit invoices to the Project Coordinator or Contract Office, via email or regular mail to the Project Coordinator, Montgomery County Public Schools, **45 West Gude Drive, Suite 4300, Rockville, Maryland 20850** for payment approval. **All invoices shall identify pertinent information such as purchase order number and building name where work was performed.** The MCPS Project Coordinator shall submit invoices and receiving reports to the Division of Controller to process payments, and shall specify final or partial payments.
- b. MCPS is not obligated to make partial payments. However, partial payments may be considered based upon the Contractor's justification of expenditures and satisfactory work performed up to 75% of the total contract cost. The remaining balance will be paid upon MCPS acceptance of the project as being 100% complete and in compliance with specifications. MCPS will refrain from making any partial payments if, in MCPS' opinion, the project falls behind schedule. MCPS may resume making partial payments once all delays have been overcome and the project is back on schedule. Final payment shall be made after the project is complete in all detail as specified and accepted by MCPS Project Coordinator.
- c. Partial payment invoices shall be accompanied by a detailed schedule of values allocated to various portions of the work (similar to AIA Document's G702 & G703). This schedule, unless objected to by the MCPS Project Coordinator, shall be used as a basis for reviewing the Contractor's application for partial payment.

## 6. Permits and Inspections

The Contractor shall obtain all required permits, including electrical and plumbing permits, **pay all fees**, and certify that other required permits have been obtained prior to commencing work. This includes, but is not limited to, the Contractor securing permits on behalf of MCPS and scheduling of inspections as required by Federal, State and County authorities and Maryland Department of the Environment permits. Upon completion of all work, obtain all certificates of inspections required and deliver them to the MCPS Project Coordinator. All required permit certificates and related documentation shall be submitted to the MCPS Project Coordinator for approval prior to final payment. The Contractor shall provide all drawing documentation, etc. as required to secure permits.

Contractor is responsible for determining the permitting jurisdiction that has authority and what permits are required such as Montgomery County Government, City of Rockville, City of Gaithersburg, Town of Poolesville, etc.

**D. SALES TAX**

Section 326 (a) of Chapter 452 of the Laws of Maryland, 1968, provides, among other things, for the taxation of "any sale . . . of tangible personal property to Contractors or Builders to be used for the construction, repair, or alteration of real property . . . ". Sales tax, as applicable, shall be included in any bid made to the Board of Education of Montgomery County, Maryland.

**E. PERFORMANCE**

1. The Contractor shall have on the job site at least one person fluent in English and one person who has an MCPS Contractor badge at all time.
2. **The Contractor shall provide to the MCPS Project Coordinator cellular telephone numbers and Email addresses of project managers to allow day-to-day direct communications.**
3. Work to be completed in a timely workmanlike manner; fumes, odors, materials and work procedures will be controlled to protect occupants and property from harm and damage. Contractor shall protect all existing floors, including floor where material is stored or being transported with **Ram Board .375"** thick or MCPS approved equal.
4. The Contractor shall furnish the services of an experienced supervisor, who shall be in charge of the work and provide direction to the crew at all times.
5. Contractors and employees:
  - a. Contractors are highly encouraged to have all employees completed the fingerprinting and background check, so they can receive an MCPS Contractor badge. MCPS Contractor's badges shall be worn while on premises.  
All workers will be required to check in daily at the facility's main office, those without MCPS contractor badge will receive identification badges that shall be worn while on premises. These badges must be returned to MCPS daily.  
All contractor employee must wear a badge while on site.
  - b. Use of any form of tobacco products, liquor and/or illegal drugs is not permitted in MCPS buildings and on grounds.
  - c. Are not to routinely use facility equipment and buildings, i.e., telephone, lounges, toilet rooms, parking lots, etc. The MCPS Project Coordinator will designate such facilities authorized for Contractor use.
6. All work shall be scheduled to the mutual satisfaction of the School Administration and the MCPS Project Coordinator to avoid conflicts with school activities.
7. The building is expected to be occupied throughout the stated period allowed for this work. The Contractor shall take all required safety precautions.

8. Work area must be left clean and ready for use after the installation. The Contractor must remove all debris generated by the work from the premises daily or as approved by the MCPS Project Coordinator.
9. Installation must be performed in strict compliance with the latest local, state and federal regulations having authority. The Maryland Occupational Safety and Health Administration Hazard Communication Standards must be followed.
10. Field measurements are required.
11. The Contractor shall not attempt to hire any MCPS employee to perform any work or to supply any materials under this contract. If the Contractor violates this condition, MCPS will have the right to cancel the contract and have the remainder of the work performed by others at the original Contractors expense even if this cost exceeds the original contract amount.
12. Failure to perform in accordance with MCPS specifications and industry standards may result in the Contractor being removed from the approved bidder list for future Invitations to Bid for a period of two (2) years.

**F. CHANGES IN THE WORK**

1. Should it be desired to make alterations or changes at any time during the progress of the work or to add to or delete work, MCPS shall have the undisputed right to make such changes, additions, omissions, or alterations by written order. An MCPS CHANGE ORDER FORM under **APPENDIX E** must be completed and signed by both MCPS and Contractor's authorized representative as identified on the form. All Change Order Forms, Proposals and other supporting documentation pertaining to additional work must be supplied to the MCPS Project Coordinator within one week from the time the Change Order need is identified. No cost changes to contract will be paid without a complete Change Order Form signed by both parties. ***Approved Change Orders do not automatically revise completion dates.*** It is the Contractors responsibility to provide a written request for extension, with an explanation of justification as they deem necessary. **Using project change orders as rationale for not completing on time will not be accepted without an MCPS approved extension.** If additional work is performed without MCPS written authorization, the Contractor will be subject to reversing said work, or work and/or materials should remain at no cost to MCPS. This shall be solely at MCPS' discretion.
2. The allowable, "all inclusive", mark-up for combined supervision, overhead, bonds, fringe benefits, union fees, small equipment, tools, and profit for work performed by the prime Contractor will be based on the monetary value of the work not to exceed the following rates:

Value of Work

Combined Overhead & Profit

\$0 - \$1,000  
\$1,001 - \$4,999  
\$5,000 - \$9,999

20%  
18%  
16%



\$10,000 - \$24,999  
Over \$24,999

14%  
Negotiated but not more than 10%

This schedule applies to work done by the prime Contractor or by a Sub-Contractor. The prime Contractor shall be allowed not more than 8% of the Sub-Contractor's cost for labor, materials, overhead and profit.

3. The Contractor shall furnish supporting documentation with all Change Order Request credits and or/extras. At a minimum, change order request shall include a description of the work, detailed material lists, costs of materials (actual Contractor costs, not list prices), man-hours and rates. The same material costs, man-hours, rates, supervision, overhead, profit, shall be applied equally to a credit or an extra.

**G. LATE CHARGES FOR FAILURE TO COMPLETE ON TIME**

1. MCPS shall retain \$500.00 per each calendar day of delay beyond the completion date stipulated on the contract, for the first five days. MCPS shall retain \$1,000.00 for each calendar day thereafter. The late charges shall be assessed by MCPS as a result of the late completion. This shall apply if the Contractor fails to meet any specified target date as identified herein unless a written approval for extension has been granted by MCPS.
2. Failure to complete the work within the time specified will entitle MCPS to late charges. These charges will be deducted and retained out of any monies due to the Contractor under this contract for the sum stated in the above paragraph for each calendar day required to complete the work beyond the agreed upon and documented completion date. This includes Saturdays, Sundays and legal Holidays.
3. If necessary to reach a proper stopping place in any portion of work or to complete work within contract time limit, the Contractor shall work overtime both their workforces and the workforces of their Sub-Contractors without additional cost to the contract price. The Contractor shall be responsible for all incidental costs in connection with such overtime work including, but not limited to, MCPS building service staff overtime required.
4. If work falls behind schedule, as determined by the MCPS Project Coordinator, the Contractor shall provide, at their own expense, additional labor and/or equipment, overtime pay, etc., as required to overcome delays including, but not limited to, MCPS building service staff overtime as required.
5. The MCPS Contracts Office Supervisor will review a request for extension of completion time due to strikes, lack of materials, and/or any other condition, over which the Contractor has no control. Written application for extension shall be made immediately upon occurrence of conditions that, in the opinion of the Contractor requires such an extension, with reason clearly stated and detailed proof for each such delay. The delay of MCPS issuing a purchase order does not automatically alter any completion dates. If in the Contractor's view the delay of a purchase order is having a negative effect on completion of the contract within the dates specified, they must notify MCPS in writing immediately. Using the rationale that a purchase order was issued late, at the conclusion of the work will not be an acceptable reason for requesting a contract extension. No time extension will be allowed except by final written approval of the MCPS Contract Officer. No requests for

extension due to weather conditions will be considered unless accompanied by documentary evidence supplied by the NOAA'S National Weather Service showing, by comparison, that such weather suffered is abnormal to any of the past five years as recorded. **No request for extension will be considered by MCPS if received from the Contractor after the previously agreed completion date has passed. Late charges will be automatically deducted from monies owed.**

#### H. CONTRACTORS OVERTIME PROCEDURE

If the Contractor chooses to work overtime for any reason and secures MCPS approval to do so, the Contractor shall be responsible for any associated costs including MCPS building service staff, etc. Average building service staff overtime rate is \$35.00 per hour. This rate is estimated and could either be more or less than the quoted overtime rate. All overtime work must be requested **in writing** to the MCPS Project Coordinator, at least 48 hours in advance. This will allow MCPS staff sufficient time to coordinate the required building service staff participation. The Overtime Reimbursement Agreement under **APPENDIX F** must be completed and signed by MCPS and the Contractor before work is to be performed. The request must identify the dates and times the Contractor proposes to work. Without written request and Overtime Reimbursement Agreement, MCPS will not approve any overtime.

#### I. MCPS CONTRACT OFFICE SUPERVISOR/PROJECT COORDINATOR

1. The Capital Improvement Contracting Office Supervisor will represent MCPS in the execution of this contract. No changes in contract conditions or specifications will be made without the CIP Contracting Office Supervisor's approval and authorization by the Team Leader of the Procurement Unit.
2. After the award an MCPS Project Coordinator will be assigned to handle the day-to-day operation and installation coordination. Scheduling work on site after an award of contract must be made through the MCPS Project Coordinator.
3. The MCPS Project Coordinator is authorized to:
  - a. Serve as liaison between MCPS and the Contractor;
  - b. Give direction to the Contractor to ensure satisfactory and complete performance;
  - c. Monitor and inspect the Contractor's performance to ensure acceptable timeliness and quality;
  - d. Serve as records custodian for this contract;
  - e. Accept or reject the Contractor's performance;
  - f. Furnish timely written notice of the Contractor's performance failure to the MCPS Contract Office Supervisor; and copy to the Procurement Unit;
  - g. Prepare required reports;

- h. Approve or reject invoices for payment and submitted construction schedules;
  - i. Recommend contract modifications or terminations to the MCPS Contract Officer;
  - j. Issue notices to the Contractor to proceed with the project after receiving signed Change Order as required.
4. The MCPS Project Coordinator is not authorized to make any determination that alter, modify, terminate or cancel the contract, effect procurement, interpret ambiguities in the contract language, or waive MCPS contractual rights.

**J. PRE-CONSTRUCTION INSPECTION OF EXISTING CONDITIONS**

Upon receipt of the Award Notification Letter, the MCPS Project Coordinator and the Contractor shall schedule a meeting at the project site to thoroughly examine and inspect all existing conditions that will be affected by the work of this contract. Existing conditions to be inspected consist of, but are not limited to, electrical work, finishes, and site conditions. A thorough examination shall be performed, inspections made, and conditions documented for equipment, piping, ductwork, wiring, electrical devices, finishes, structures, etc. which are designated to remain and be reused, to be temporarily removed and re-installed in place, and/or to be removed and be permanently relocated. The Contractor shall prepare a detailed report of this survey and submit to MCPS for approval prior to performing any work on-site. Failure to submit a report and obtain MCPS approval shall constitute acknowledgment by the Contractor that all existing conditions and work are in good condition and function properly. The Contractor assumes full, unconditional responsibility for maintaining existing conditions in good and working order. The Contractor shall demonstrate that the same good and functional conditions exist at the end of the project as existed prior to performing the contracted work. Any work or conditions found damaged or defective at project punch-out shall be repaired and/or replaced at Contractor's expense to the satisfaction of MCPS.

**K. PROJECT CLOSE-OUT**

1. Prior to request for final payment, the Contractor shall notify the MCPS Project Coordinator **in writing** that the work is ready for punch-out inspections. All areas shall be clear of construction materials and debris.
2. During punch-out, the following shall be present:
  - a. Authorized representatives of MCPS
  - b. Contractor
3. The Contractor shall notify the MCPS Project Coordinator **in writing** for a final inspection once all related punch list items have been completed. All punch-out and final inspection shall be performed well in advance of the completion date to allow for corrections. If not, late fees will be assessed until all corrections are made.
4. The Contractor shall provide written warranty statements indicating start and end of warranty dates to be signed by both the Contractor and MCPS.

**L. CONSTRUCTION SCHEDULE AND PROGRESS MEETINGS**

1. MCPS reserves the right to have the Contractor submit a construction progress schedule and to convene regularly scheduled progress meetings. The Contractor prepared progress schedules shall be of sufficient detail to afford MCPS a means of verifying that work is preceding in a timely fashion throughout construction to assure on-time completion.
2. When required by MCPS, an initial construction schedule shall be presented at the Pre-Construction Meeting. Scheduling of future progress meetings and requirements for submission of progress schedule updates will be determined at the Pre-Construction Meeting.

**M. QUALITY ASSURANCE**

The installers shall perform all installations in accordance with manufacturer's procedures, MOSHA, NEC, NFPA, Montgomery County Building Code requirements, Montgomery County Fire Marshal office and MCPS specifications herein. The successful Contractor shall have been in business and regularly engaged in the installation of emergency generating system similar to those specified herein for a minimum of five years. All trade work shall be performed by appropriately licensed trade persons. A copy of the Montgomery County licenses must be submitted to MCPS with bid submission. **Failure to provide the letter may disqualify the bid proposal.**



**III. DETAILED SPECIFICATIONS****A. INTENT**

1. It is intent that the Contractor will perform all design/build tasks including all drawings and permits, in compliance with all specifications herein. This section of the specifications applies to and forms a part of all sections covering labor, material and general construction work for installation of emergency electric generating system and related 24-hour emergency lighting circuits, etc., at Charles R. Drew Elementary School, Monocacy Elementary School, Summit Hall Elementary School and Walt Whitman High School, as required. Work is to be performed in accordance to the specifications herein, manufacturer's instructions, NFPA, NEC, Washington Gas, WSSC, and Montgomery County building code requirements and in compliance with all other authorities having jurisdiction. These specifications represent our minimum requirements.
2. The Contractor shall schedule, coordinate, and pay for all utility shut down and related overtime. The Contractor shall disconnect all existing (old) emergency light (battery packs), generators etc. after new generator has been approved and put online for service. The Contractor shall paint and patch affected areas to match existing.

**B. GENERAL REQUIREMENTS****1. Specification Explanation**

- a. The Contractor shall coordinate and organize the entire work specified in all sections of the specifications so that duplications or omissions are eliminated.
- b. Wherever the term "provide" is used, it shall mean, "Furnish and install in place, complete in all details".
- c. Where any device or part of equipment is herein referred to in the singular number (such as "the unit") such reference shall be deemed to apply to as many such devices as required to complete the installation.

**2. Execution of Work**

- a. The Contractor shall examine the premises and observe the conditions under which the work will be done or other circumstances, which will affect the contemplated work. The Contractor shall carefully examine the existing site conditions. No allowance will be approved subsequently to award in connection to errors or negligence due to pre-existing conditions.
- b. The Contractor shall coordinate the work and equipment of all trades involved with the project to accomplish and to assure a complete and satisfactory installation.
- c. Work involving entering, connecting to, or interrupting services for, or in any way interfering with the normal activities taking place in the existing building or on facility grounds shall be coordinated with the MCPS Project Coordinator.

- d. At least 48 hours advance notice shall be given to MCPS before performing such work, unless directed otherwise by the MCPS Project Coordinator.
- e. The Contractor is advised that all work involving disrupting the use of utilities shall not be carried out until permission has been received from the building staff and the MCPS Project Coordinator.
- f. Any work which is expected to be completed while the building is unoccupied, shutdown, or restricted is to be anticipated by the Contractor and included in the initial bid proposal. Change orders requested for this work will not be considered. The Contractor shall be held responsible for completion of such work.
- g. When the work specified requires relocating existing utilities, power, piping, ductwork or equipment, the Contractor shall perform all work and make all necessary changes to existing work as may be required to leave the entire complete work in a finished and workmanlike condition, to the entire satisfaction of the MCPS Project Coordinator, regardless of whether or not these changes are specifically called for by the specifications. All work performed on existing power systems, piping systems, ductwork or equipment shall be done in accordance with the applicable provisions of these specifications, including materials, insulation, painting, etc.

**3. Installation of Equipment/Materials**

- a. It is the intention of the specification to call for finished work, tested, and ready for operation.
- b. Any apparatus, appliance, materials or work not mentioned in the specifications, or any incidental accessories necessary to make the work complete in all respects and ready for operation, even if not particularly specified, shall be furnished, delivered and installed by the Contractor.
- c. Auxiliary piping, fittings, accessories, etc. required for proper operation shall be furnished and completely installed.
- d. Minor details not usually specified, but necessary for proper installation and operation; shall be included in the work.
- e. With submission of the bid, the Contractor shall give written notice to the MCPS Project Coordinator of any materials or apparatus believed to be inadequate or unsuitable, in violation of laws, ordinances, rules or regulations of authorities having jurisdiction and any necessary items or work omitted.
- f. In the absence of such written notice, it is mutually agreed that the Contractor has included the cost of all required items in the proposal and that the Contractor will be responsible for the approved satisfactory functioning of the entire system without additional compensation.

**4. Installation Instructions**

- a. All piping shall be run with proper grade and the maintenance of proper clearances for access to all parts requiring servicing.
- b. No cutting shall be done by the Contractor without the authorization of the MCPS Project Coordinator.
- c. The Contractor shall determine the locations, sizes, etc. of all items required for the proper installation. The Contractor shall furnish all supports, etc. required for the work and shall be responsible for their proper and permanent locations. Any additional angles, channels, blocks, etc. required for supporting the equipment, conduit, or piping, shall be furnished and installed.
- d. No waterproofing shall be cut for any purpose, except on written approval of the MCPS Project Coordinator.
- e. It shall be the Contractor's responsibility to see that all equipment such as valves and other apparatus or equipment as may require maintenance and operation are made easily accessible.

**5. Submittals and Approvals**

- a. The Contractor shall submit detailed project and shop drawings and catalog cuts. These drawings shall be submitted after receiving approval of equipment manufacturers prior to delivery of any material to the job and sufficiently in advance of requirements to allow ample time for checking. Approval rendered on shop drawings shall not be considered as a guarantee of measurements or site conditions. Where drawings are approved, said approval does not mean that drawings have been checked in detail; said approval does not in any way relieve the Contractor from the responsibility of furnishing material or performing work as required by the contract drawings and specifications.
- b. Submittals shall include
  - 1) Generator and Auto Transfer Switches
  - 2) Disconnect Switches and Circuit Breakers
  - 3) Panel boards
  - 4) Annunciator
- c. Submittals shall be sent to:

The assigned MCPS Project Coordinator, who will be determined at the pre-construction meeting.

- d. The MCPS Project Coordinator shall return submittals to the Contractor **within 10 workdays** after receipt. The Contractor is responsible for budgeting adequate time to accomplish the submittal process while adhering to the project schedule.
- e. The Contractor's intent to use the exact makes specified, does not relieve them of the responsibility of providing submittals for approval. If the Contractor fails to provide submittals for any material or equipment, then the right is reserved for a full selection of material and equipment by the MCPS Project Coordinator, whose selection shall be final and binding upon the Contractor and shall be used in the project.
- f. Where any specific material, process or method of construction or manufactured article is specified by name or by reference to the catalog number of a manufacturer, the specifications shall be used as a guide and are not intended to take precedence over the basic duty and performance specified. In all cases the Contractor shall verify the duty specified with the specific characteristics of the equipment offered for approval.
- g. Where no alternative materials are specified and where the words "MCPS approved equal" are not used, the materials shall be provided. See "6." below. If the material is installed before it is approved, and does not meet the intent of the drawings and specifications, the Contractor shall be liable for its removal and replacement.

**6. Equipment Substitutions/Deviations**

- a. Where specifications indicate the name, model number or type of the materials to be used as a standard for the Contractor's proposal, all bids shall be based on the materials specified. If the bidder desires to use materials of a make other than those specified or shown, the bidder shall attach a deviation to the bid listing the deductions and/or additions to the base bid, together with the manufacturer's name and model numbers of the materials proposed as "Substitutes". If no substitute information is furnished, it will be understood that all material named will be furnished in full accordance with the specifications.
- b. If a Contractor proposes to use materials other than that specified which requires any redesign of the structure, site, foundations, piping, or of any other part of the structural or architectural work, all such redesign and detailing required shall be prepared by the Contractor, subject to the approval of the MCPS Project Coordinator. Where such approved deviations require a different quantity and arrangement of piping work, or extent of re-finishing, the Contractor shall furnish and install all such work including piping, supports, re-finishing, and any other additional materials or work required to comply with the intent of the specifications.



**7. Codes/Rules**

All material furnished and all work installed shall comply with the rules and recommendations of local authorities, with the N.F.P.A., with all requirements of local utility companies and with the recommendations of the fire insurance rating organization having jurisdiction. Where the following standards, codes or specifications are referred to, the reference is to the particular standard, code or specifications, together with all amendments and errata applicable at the time the bids are taken.

ANSI	American national Standards Institute
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWWA	American Water Works Association
BOCA	Building Officials Code Administrators, Mechanical & Building Code
EPA	Environmental Protection Agency Federal Government Specifications
IEEE	Institute of Electrical and Electronic Engineers
MOSHA	Maryland Occupational, Safety and Health Act
NADCA	National Air Duct Cleaners Association
NEBB	National Environmental Balancing Bureau
NEC	National Electric Code
NESC	National Electric Safety Code
NEMA	National Electrical Manufacturers' Association
NFPA	National Fire Protection Association
OSHA	Occupational Safety & Health Act
UL	Underwriters' Laboratories, Inc.
SMACNA	Sheet Metal & Air Conditioning Contractors National Associations, Inc.
WSSC	Washington Suburban Sanitary Commission

**8. Quality Assurance****Qualification of Contractor and Personnel**

- a. The Contractor must be properly licensed in the installation of all required plumbing & electrical systems.
- b. The Contractor shall have not less than five years continuous experience in the installation of all classes of work specified in the contract documents.
- c. The Contractor must have the necessary expertise, manpower, equipment, and sufficient capital to execute the work properly within the time specified.

**9. Cooperation with Other Trades**

- a. The Contractor shall give full cooperation to the other trades and shall furnish any information necessary to permit the work of all trades to be installed satisfactorily and with the least possible interference or delay.

- b. Where the work will be installed in close proximity to work of other trades, or where there is evidence that the work of the Contractor will interfere with work of their trades, the Contractor shall assist in working out space conditions to make a satisfactory adjustment. If the Contractor installs the work before coordinating with other trades or so as to cause interference with their work, the Contractor shall make necessary changes in this work to correct the conditions.

**10. Materials and Workmanship**

- a. All materials and apparatus required for the work shall be new, of first-class quality and shall be furnished, delivered, erected, connected and finished in every detail, and shall be so selected and arranged as to fit properly into the building spaces. Where no specific kind of material is given, a first-class standard article as approved by the MCPS Project Coordinator shall be furnished.
- b. The Contractor shall furnish the services of an experienced superintendent, who shall be in charge of the installation of the work, together with all skilled workmen, electricians, fitters, plumbers, finishers, pavers, helpers and labor required to unload, transfer, erect, connect up, adjust, start, operate and test each system at all times.
- c. Unless otherwise specifically indicated on specifications, all equipment and materials shall be applied with the approval of the MCPS Project Coordinator in accordance with the recommendations of the manufacturer. This includes the performance of such tests as the manufacturer recommends.

**11. Cutting and Patching**

- a. The cutting of paving, walls, ceilings, walks, grounds, etc., for the installation of the generating system shall be performed by the Contractor using skilled mechanics of the trade involved.
- b. The Contractor using the same type and quality of materials as originally used shall do all patching. Finish of patched area shall match and blend into adjacent existing finished areas. The MCPS Project Coordinator shall approve all work.
- c. Upon completion of all work, any and all damage to the school building and grounds as a result of the work; must be restored to a condition as good as existed prior to damaging as acceptable to the MCPS Project Coordinator. Damaged lawns shall be re-sodded; damaged shrubs and trees shall be replaced.
- d. All hot work shall be done in accordance with FM Global hot work permit requirements.

**12. Salvage and Demolition**

- a. Material to be removed shall be removed with extreme care by skilled workmen, fitters, electricians, plumbers, finishers, so that remaining utilities, site work, piping, finishes, or other systems are not damaged and are left in good condition.

Any material or equipment indicated to remain, or existing finish or appurtenance, etc. which is damaged by the Contractor, shall be replaced or repaired to its original condition, subject to the approval of the MCPS Project Coordinator. Such repairs shall be performed at the Contractor's expense.

- b. All salvageable materials removed in the process of demolition shall be retained as property of MCPS. MCPS reserves the option of examining said materials and either retaining possession in whole or part, or turning possession of these materials over to the Contractor for disposal.
- c. All materials removed in the process of demolition and not designated to be retained by MCPS, whether or not salvageable, shall become the property and responsibility of the Contractor and shall be removed from the site by the Contractor.

### 13. **Waterproofing**

Where any work involves piercing of waterproofing, the method of installation shall be as approved by the MCPS Project Coordinator before work is done. The Contractor shall furnish all necessary sleeves, caulking and flashing required making openings absolutely watertight.

### 14. **Protection of Materials**

- a. The responsibility for care and protection of all work rests with the Contractor until it has been tested and accepted. After delivery, before and after installation, the Contractor shall protect materials against theft, injury and damage from all causes.
- b. The Contractor shall receive, properly house, handle, hoist and deliver to the proper location, all materials required for the contract. Materials damaged in any way prior to final acceptance shall be replaced as directed by the MCPS Project Coordinator.

### 15. **Painting**

- a. Unless otherwise specified, all fabricated or assembled surfaces normally painted shall be thoroughly dry and free from all rust, grease, scale and shall receive the manufacturer's customary shop priming coat. All instruments, gauges, and equipment having enameled finish shall be protected.
- b. All pipe hangers, clamps and supporting steel not provided with a corrosion-proof finish shall be painted.
- c. Paint all existing walls, doors, and frames damaged during the work to match existing. Where existing walls require repainting, extend new paint over the entire wall to the nearest corner.
- d. Paint type shall be suitable for the surfaces to which they are applied; i.e. wood piping, casework. Prime raw surfaces as required by paint manufacturer prior to applying undercoat and finishing coat. Newly painted surfaces shall require primer,

undercoat, and finishing coat; existing painted surfaces requiring repainting shall receive one finish coat.

- 1) Paint: Exposed piping and/or insulation
- 2) Finish paint types, in general, shall be semi-gloss interior alkyd enamel equal to Duron, applied in strict accordance with manufacturer's recommendations.

#### 16. Testing

The intent of this specification is to provide equipment of proven reliability and compatibility. Two separate tests shall be performed: Factory Production Model Test and Field Tests.

##### a. Factory Prototype Model Test

Before shipment of the equipment, the engine-generator sets shall be tested under rated load and power factor for performance and proper functioning of controls and interfacing circuits. Testing at unity power factor only (resistance banks only) is not acceptable, since KW output is affected by the higher generator efficiency at unity power factor, and the KVAR motor starting and regulation loads varies with power factor. Test shall include:

- 1) Single step load pickup per NFPA 110-85, paragraph 5-13 2.6 (or latest iteration).
- 2) Transient and voltage dip responses and steady state voltage and speed (frequency) checks.

##### b. Field Test after Installation

- 1) The complete installation shall be initially started and checked out for operational compliance by factory trained representative(s) of the engine-generator set(s) manufacturer. The engine lubrication oil and as recommended by the manufacturer for operation under environmental conditions specified, shall be provided by the engine-generator set(s) supplier.
- 2) Upon completion of initial start-up and system checkout, the supplier of the system shall perform a field test, with the MCPS Project Coordinator notified, in advance, to demonstrate load carrying capability and voltage and frequency stability.
- 3) With the emergency load at normal operating level, a power failure is initiated by opening all switches or breakers supplying the normal power to the building or facility. Records shall be maintained throughout the tests, of time-of-day, coolant temperature, cranking time, until prime mover starts and runs, time required to come up to operating speed, voltage and frequency overshoot, time required to achieve steady-state condition with all switches



transferred to the emergency position, voltage, frequency, current, oil pressure, ambient air temperature, kilowatts, power factor, battery charger rate at 5 minutes, and at 15 minutes intervals thereafter. Continue this load test for 6 hours, observing and recording load changes and the resultant effect on voltage and frequency, return normal power, record the time delay on retransfer for each switch (set for 15 minutes minimum) and the time delay on prime mover cool down period and shutdown.

- 4) Upon completion of the above test, allow the prime mover to cool for five minutes. Then apply full rated load (nameplate KW) consisting of building load supplemented by a load bank if required. Unity power factor is suitable for on-site testing; provided that rated load tests at power factor have been performed by the manufacturer prior to shipment. This full-load pickup shall be in one step immediately upon reaching rated r/min.

### 17. Foundations for Equipment

**The Contractor shall provide all concrete foundations as required to accommodate the new unit. Concrete shall be 3500 PSI and standard methods of modification shall be followed, i.e.; rebar, etc. No bagged concrete mixed on site is allowed such as Sakrete, etc. New slabs must be pinned to existing concrete using minimum 1/2" rebar embedded a minimum of 6" deep in existing concrete and epoxies in place using SIKA epoxy designed for steel to concrete or equal brand approved by MCPS Project Coordinator.**

### 18. Operating Instructions

Upon completion of all work and of all tests, the Contractor shall furnish the necessary skilled labor and helpers for operating the systems and equipment specified for the period of four hours, or as otherwise specified. Instruct the owner or their representative fully in the operating, adjustment and maintenance of all equipment furnished.

### 19. Fire Stopping

Fire stopping shall be installed at all new penetrations, or at existing penetrations where the Contractor is doing new work, of fire rated barriers. Fire stopping materials shall form an effective barrier against the spread of flame and hot gases and to maintain the integrity of time rated construction. Types of construction included are two hour and one hour partitions, rated floors. Fire stopping materials shall completely fill voids around penetration regardless of geometric configuration. Insulated pipes and ducts penetrating rated barriers shall be insulated with material, which provide same performance of, fire stopping material.

### 20. Single Manufacturer

All equipment, including engine-generator sets shall be manufactured by a single manufacturer who has been regularly engaged in the production of engine-generator sets for a minimum of 10 years. The electric generating system described herein, including

the components shall be factory built, and factory tested, and shipped by a single manufacturer, so there is one source of supply and responsibility for warranty, parts and service. The manufacturer shall have a local representative who can provide factory-trained servicemen.

**21. Additional Safety Standard**

- a. The electric generating system must meet all requirements of NFPA 110-1985 including design specifications, prototype tests, one-step full-load pickup and installation acceptance.
- b. The responsibility for performance cannot be split among individual suppliers of components comprising the system, but shall be assumed solely by the supplier of the system. The manufacturer shall furnish schematic and wiring diagrams for the engine-generator set.
- c. All controls shall be the standard of the manufacturer, who is engaged in the manufacture of generators and has them available for sale on the open market. Control parts shall be identified by part numbers of the manufacturer and shall have second source listing where applicable.

**22. Equipment Standard**

- a. Equipment as described herein is that as manufactured by **Onan** at Minneapolis, Minnesota, and all equipment furnished shall be MCPS approved equal in every way to that specified herein, including quality, operation, and function. The equipment spacing, mounts, electrical wiring, ventilation equipment, fuel and exhaust components must have all been sized and designed around the Onan equipment. If alternate equipment is substituted, the Contractor shall be responsible for changes in the facilities for work, made necessary for installation of equipment other than Onan, without additional cost to MCPS, and shall verify all work with equipment manufacturer.
- b. Only MCPS specified/approved manufacturers listed herein will be acceptable for this bid.
- c. Where no alternative materials are specified and where words "MCPS approved equal" are not used, the exact equipment or materials shall be provided. If the material or equipment is installed before it is approved, the Contractor shall be liable for its removal and replacement at no extra charge to MCPS. If in the opinion of the MCPS Project Coordinator, the material or equipment does not meet the intent of the drawings and specifications.
- d. The Contractor shall furnish with each generator an operating manual and a parts breakdown manual with a description of each part. A service manual for each generator shall also be furnished. The manual shall be handed to the MCPS Project Coordinator.

**23. Electrical Work****a. General**

The Contractor shall furnish all labor, materials, equipment, tools, and services necessary for and reasonably incidental to connecting the new generator, automatic transfer switches, and power circuits for boilers, pumps, circulating pumps, freezers, fire alarm panels, emergency lights, the telephone equipment and paging/sound system to be connected to the emergency generator power service. The existing wiring may be used as applicable; except that any existing of poor workmanship and/or wiring that are damaged by this installation shall be replaced with new. Wiring shall be installed concealed above ceilings and in wire mold when applicable where run in finished areas. New emergency life safety and non-life safety panel boards shall be provided. The new panel shall be installed allowing for 30 percent future space.

**b. Material**

- 1) Heavy-wall rigid metallic conduit with threaded fittings shall be used when run exposed outdoors.
- 2) Connections to equipment shall use UL approved liquid tight flexible metal conduit with appropriate insulated throat fittings.
- 3) Supports, hangers, and anchors shall be made of non-corrosive metal. Plastic anchors and straphangers are not acceptable.
- 4) Wire shall be type THHN/THWN insulated copper, minimum No. 12 AWG. All wire No. 10 AWG or smaller shall be solid and No. 8 or larger shall be stranded type.
- 5) Provide green bond wire for all feeders, branch circuits serving panel board, motors, receptacles, etc.
- 6) Junction boxes shall be provided as required. Covers shall be stenciled to indicate the voltage and system served.
- 7) Conduits shall be 3/4" minimum size.
- 8) All conduits in boiler, mechanical, and Storage rooms shall be EMT and a minimum size of 3/4" with steel compression fittings.
- 9) All exposed work in main office and kitchen shall be in wire mold and power pole.
- 10) All underground conduits shall be in schedule 40 PVC.
- 11) All turn up 90° elbows shall be rigid steel conduit.

- 12) Wiring above drop ceiling shall be MC type cable.
- 13) All new panels shall be Square D with bolt in breakers or MCPS approved equal. All panel shall have a main (MB) Breaker separate to load speakers.

**C. MCPS APPROVED ENGINE/GENERATOR SETS**

**1. Manufacturers**

**The MCPS approved manufacturers for this bid are: Cummins Onan, Generac, Power System, Kohler and MTU Onsite Energy.** These will be the only brands acceptable at this time.

**2. Mounting**

Each engine generator set shall be mounted on a heavy-duty steel base to maintain proper alignment between components, and each set shall incorporate vibration insulators of the type and quantity as specified by the set manufacturer. **Additional isolator between the unit frame and building structure shall be provided.**

**3. Ignition**

Engine shall be stationary, liquid-cooled, spark ignited for fuel as specified below. Design shall be 4 cycle 6 cylinders, displacement minimum of 300 cubic inches. Engine shall be capable of driving the generator of this rating on a continuous standby basis for the duration of normal source interruptions per SAE J1349 conditions. KW for natural gas 1000 BTU/cu. ft. min. KW performance for units using LP-gas shall be equal to that of natural gas.

**4. Engine Components**

- a. 12-volt DC, solenoid shift, electric starter(s) as required by manufacturer.
- b. Positive displacement, mechanical full pressure lubrication oil pumps, full flow lubrication oil filters with replaceable elements, pressure relief valve, dipstick oil level indicator, and oil drain valve with hose extension.
- c. Element air cleaner with replaceable element.
- d. Fuel gas pressure reducing flow regulator.
- e. Adjustable gas flow regulator.
- f. Electric gas control solenoid valve
- g. Electronic ignition



- h. Mechanical governing system to control generator system frequency, adjustable speed regulation of 5% maximum from no-load to full-lad output with automatic over-speed shutdown.
- i. Engine protection devices shall have sensing elements located on the engine to initiate the following preliminary alarms and engine shutdown
  - 1) Low lubrication oil pressure alarm
  - 2) High coolant temperature alarm
  - 3) Low lubrication oil pressure shutdown
  - 4) High coolant temperature shutdown
  - 5) Over-speed shutdown
  - 6) Over-crank lockout
  - 7) Low coolant temperature alarm
  - 8) Provide low coolant shutdown, which shall activate high engine temperature lamp and shutdown.
  - 9) Engine starter battery charging alternator, with solid-state voltage regulator.
  - 10) 120 volts engine crank case heater, thermostatically controlled. Crank case heater(s) shall be sized to maintain the unit idle time temperature as recommended by industry standard based on zero degrees Fahrenheit ambient. **Contractor shall provide proper branch circuit from normal utility power source as required.**
- j. Engine Cooling System
  - 1) Engine shall be radiator cooled by engine mounted radiator system including belt-driven pusher fan, coolant pump, and thermostat temperature control. Performance of components shall be as required by set manufacturer. Radiators shall be provided with a duct adapter flange permitting the attachment of air discharge duct directing the discharge of radiator air through the wall.
  - 2) The Contractor shall provide 50% ethylene glycol antifreeze solution to fill engine-cooling system.
- k. Engine Exhaust System
  - 1) Provide manufacturer's quietest optimal muffler available and perform all necessary tasks as required to ensure Montgomery County Noise Control Ordinances (Chapter 31B), is satisfied at 55 dBA at nearest receiving property

line. Upon completion of the project, sound testing in the presence of the MCPS Projects Coordinator to verify compliance.

- 2) Flexible exhaust connection shall be provided as required for connection between engines exhaust manifold and exhaust line, in compliance with applicable codes and regulations. **Flexible connections shall not be used for bends and or offsets in the piping run.**
- 3) Provide a suitable rain cap at the stack outlet. Provide all necessary flanges and special fittings for proper installation.
- 4) Contractor shall mount and install all exhaust components as required to comply with applicable codes and regulations and so as not to be in close proximity of fresh air intakes.

l. Engine Fuel System

- 1) The Contractor shall provide all fuel system piping sized as required for proper fuel flow (natural gas) to the engine. Contractor shall provide all supply lines with all fittings, fuel flex line and solenoid valve. Connections shall be provided for connecting fuel system to engines in compliance with applicable codes and regulations. Units are to be capable of firing on both natural gas and LP gas for the KW outputs listed. Contractor is to verify actual fuel source in the field prior to ordering equipment and furnish appropriate gas train. Conversion to the alternate fuel may be required in the future, at which time appropriate gas trains will be installed.
- 2) Provide signs indentifying all gas piping control valves in line with the generator as (Emergency Generator Shutoff.)
- 3) A means of shutting off the building gas system must be separate from the emergency generator gas shutoff.

m. Generator

- 1) Generator shall be single-bearing, self-aligning, K four-pole, synchronous type, revolving field, with amortisseur windings, with direct drive centrifugal blower for proper cooling and minimum noise, with temperature compensated solid-state voltage regulator, with brushless rotating rectifier exciter system. No brushes will be allowed. Generator shall be directly connected to engine flywheel housing and driven through a flexible coupling to ensure permanent alignment; gear driven generators are not acceptable under this specification. Insulation shall meet NEMA standards for Class F and additionally shall meet the Quality Assurance requirements of paragraph 4 of the Onan "PTS" certificate. The maximum temperature rise shall not exceed 100 degrees Centigrade at 40 degrees Centigrade ambient. Generator design shall prevent potentially damaging shaft currents.

- 2) The three-phase, broad range, re-connectable generator shall have 12 leads brought out to allow connection by user to obtain any of the available voltages for the unit.
- 3) Voltage regulator shall be solid-state design and shall function by controlling the exciter magnetic field between starter and rotor to provide no load to full load regulation of rated voltage with  $\pm 2\%$  during steadystate condition. The engine generator must sustain at least 90% of no load voltage for 10 seconds with 250% of rated load at near zero power factor connected to its terminals.
- 4) The voltage regulator shall be of a synchronous pulse width modulated design that is insensitive to severe load induced waveshape distortion from SCR or thyrister circuits such as those used in battery charging (UPS) and motor speed control equipment.
- 5) A rheostat shall provide minimum of  $\pm 5\%$  voltage adjustments from rated value.
- 6) The generator, exciter, and voltage regulator shall be designed and manufactured by the engine-generator set manufacturer so that the characteristics shall be matched to the torque curve of the prime mover. This design allows the prime mover to use its fullest power producing capacity (without exceeding it or over compensating) at speeds lower than rated, to provide the fastest possible system recovery from transient speed dips. A system that routinely selects a linear-type (straight-line) constant volts/hertz characteristic, without regard for the engine power and torque characteristics, will not meet this specification. These characteristics shall be demonstrable as follows:
  - a) With engine-generator set operating at rated speed, voltage and load, reduce engine speed to half rated by manually overriding the engine speed governor control. Engine-generator set must recover to full speed with the rated load connected when the engine speed governor control is returned to its normal mode.
  - b) Calculations must demonstrate that the exciter and voltage regulator will permit utilization of at least 80% of maximum available prime mover torque at all engine speeds between 50% and rated speed, and with rated unity power factor load connected to its terminals.
- 7) Exciter shall be three-phase, full-wave, rectified, with heavy-duty silicon diodes mounted on the common rotor shaft and sized for maximum motor starting loads. Systems using three-wire solid-state control elements (such as transistors or SCR's) rotating on the rotor shall not be acceptable.
- 8) Generator design shall be of the self-protecting type. All other generator performance criteria shall be equal to that of the specified equipment.

- 1) Provide two units mounted main line load circuit breakers. One marked Life Safety and one marked Non-Life Safety.
- 2) Provide a lighted, unit mounted control module that is factory built, wired, tested and shock-mounted by the generator manufacturer. For the exterior units, a remote annunciator panel shall be provided and located inside at the ATS, as directed by the MCPS Project Coordinator. Unit with existing remote monitor panels located in the building services offices shall remain and be reconditioned and reconnected.
- 3) Engine-generator set control shall include the following
  - a) Gauges and meters: oil pressure gauge, coolant temperature gauge, charge rate meter and running time meter
  - b) Manual selector switch: RUN-STOP-REMOTE
  - c) Remote, two-wire controls start-stop terminals
  - d) Manual reset field circuit breakers.
  - e) Automatic engine shut down for the following faulty conditions:
    - (1) Over-crank
    - (2) Over-speed
    - (3) Low oil pressure
    - (4) High engine temperature
  - f) Indicator lamps shall be provided to signal the following functions
    - (1) RUN – indicates start disconnect
    - (2) FAULT - indicates Over crank, Over speed, High Coolant Temperature, or Low Oil Pressure
    - (3) PRE-LOW OIL PRESSURE - indicates oil pressure is marginally low
    - (4) PRE-HIGH ENGINE TEMPERATURE - indicates engine temperature is marginally high
    - (5) LOW OIL PRESSURE - indicates engine has shut down because of critically low oil pressure

- (6) HIGH-ENGINE TEMPERATURE - indicates engine has shut down because of critically high temperature
- (7) OVERSPEED - indicates the starter has been locked out because cranking time was excessive
- (8) OVERCRANK - indicates the starter has been locked out because cranking time was excessive
- (9) SWITCH OFF (flashing) - indicates control switch is in the "STOP" position

o. Fault Reset Switch

A fault-reset switch shall be provided to clear fault indications and allow restarting of the engine after shut down faults. The control design shall be such that the fault indication shall remain until reset. The fault indicator memory shall not be dependent on the presence of either A-C or D-C voltage and shall retain the fault status memory even through complete removal and replacement of the starting batteries. The fault-reset function shall operate only when the "RUN" - "STOP" - "REMOTE" switch is in the "STOP" position.

p. Standard

- 1) A locking screwdriver type potentiometer shall be provided to adjust the voltage.
- 2) Manual reset exciter field circuit breaker

q. Meters

- 1) One AC voltmeters, 90-degree scale, 2-1/2" flange, 2% switchboard meter.
- 2) One AC ammeters, 90-degree scale, 2-1 /2" flange, 2% switchboard meter.
- 3) Frequency meter 45-65 Hz, 90° scale, 2-1/2" flange,  $\pm 0.6$  Hz panel meter.

r. Weatherproof Shelter

Weatherproof shelter for exterior units. Weatherproof outdoor shelters shall completely enclose the electric generator, against adverse weather and environment conditions. Construction shall be a minimum of 16-gauge-reinforced steel. All steel to prime coated and finished with epoxy paint coatings for protection. Unit shall be designed for access to all of electric generator plant to properly service unit. Unit shall have design as to ventilate radiation as well as to protect unit against vandalism. All doors shall be hinged and have vault handles latches with padlocking provisions. The intent is to have access by one key for all sites, without regard to the unit makes. Padlocks shall be provided by the Contractor and shall be of the long shankle type: **Master Lock Model 3LHKA or as approved by the MCPS Project Coordinator.**



## s. Auxiliary Equipment

## 1) Battery Charger

A voltage regulated battery charger shall be provided for each engine-generator set. **Charges shall be equipped with separate float, full charge taper, and timer controlled equalizes charge settings.** The charger power shall be supplied from the normal source: **Contractor shall provide circuits as required.**

## 2) Vibration Isolators

Each engine-generator set shall be mounted on vibration isolators, external to the set skid base.

## 3) Install matching annunciator as required.

## t. Automatic Load Transfer Switches

## 1) General

- a) The transfer switches shall be GTS and shall be designed, built, tested, furnished and warranted by the manufacturer of the standby, standby continuous, or prime power generating equipment to ensure one source of responsibility and equipment compatibility. An approved transfer switch manufacturer shall have been regularly engaged in the production of UL (Underwriters Laboratory) standard 1008 listed transfer switches. The transfer switches shall be documented and have been offered for sale on the open market for a minimum of five years. The manufacturer shall provide factory-trained parts and service support through a factory-authorized distributor that is regularly doing business in the area of the installation.
- b) The manufacturer shall supply literature containing diagrams, parts lists and descriptions sufficient for the MCPS personnel, or subcontract supplier to install; operate and perform normal maintenance on the equipment. The Contractor shall supply MCPS with any codes that are set / installed during the start-up of the Emergency Generator.
- c) A power generating system shall include **Onan OT-III or MCPS approved equivalent** transfer switches.
- d) Testing: To provide proven reliability of the system, transfer switches shall be completely tested as follows:
  - (1) Representative production samples of the transfer switches supplied, shall be demonstrable, through tests, the ability to withstand at least 10,000 mechanical operating cycles. An operating

cycle shall consist of one electrically operated transfer from normal to emergency and back to normal.

- (2) During the development of the original transfer switching mechanism for this family of transfer switches, a prototype of the transfer switching mechanism shall have passed the environmental tests listed in Military Standard, Mill-Std-202E. These tests shall include Method 101 D-Condition B, Salt Spray-Corrosion; Method 10313-Condition B, Humidity; Method 107D-Condition A, Thermal Shock; Method 1 10A sand and dust.
- (3) Transfer switches supplies shall be UL listed per Standard 1008. The minimum WCR (Withstand and Closing Current Ratings) shall meet the requirements of U. L. Standard 1008 and shall be obtained without contact welding. Where the line side over current protection is provided by circuit breakers at 480 volts AC or less, the short circuit WCR shall be as follows:

**Transfer Switch Continuous Current Ratings 100**, or as noted in the specifications.

- (4) The RMS (Root Mean Square) symmetrical fault current ratings shall be verified by UL witnessed tests on representative test samples. All WCR tests shall be performed with the over current protective devices located external to the transfer switch. Tests conducted with over current protective devices internal to the transfer switch, in such a manner that the transfer switch interrupts the current rather than withstanding the current, are not acceptable under this definition of withstand.

u. Production Model Tests and Field Test

Perform these tests as described under "Factory Production Model Tests" and "Field Test after Installation" under the "GENERAL" section of individual engine-generator set "Sample Guide Specifications". A manufacturer representative shall conduct a complete system operational test at the job site for the MCPS Project Coordinator and for the MCPS operating personnel.

v. Ratings

- 1) All transfer switches shall be the UL Listed per Standard 1008. All transfer switches shall be suitable for use on legally required emergency systems in accordance with ANSI-CI and NFPOA-99, rated for total system load. These loads shall include motors, electric discharge lamps, resistive loads and tungsten lamps as described in Section 1 of UL 1008 Standard.
  - (a) Transfer switches shall be 60 Hz with solid neutral. Refer to school for the number and locations of transfer switches, number of phases, voltage and amperage ratings.



handles and non-key-operated control switches located on the outside of the cabinet do not meet this specification.

- (e) Unless noted or specified otherwise, each transfer switch shall be mounted in separate NEMA 1 cabinet enclosures with key-locking front doors.
- (f) Maximum transfer time in either direction shall be six cycles, except where the "Programmed Transition" feature is furnished.
- (g) All transfer switches shall have transparent protective covers to protect operating personnel during manual operation, and to allow an operator to visually determine that the main contacts are "Open" or "Closed".
- (h) The main switch contacts shall be of the no-maintenance type and high-pressure silver cadmium oxide to resist burning the pitting for long life operation. All switches shall have arc chutes of heat absorbing materials and metal leaves for positive extinguishing of arcs quickly and effectively; arc chutes shall have insulating covers to prevent interphase flashover.
- (i) Transfer switches shall have one S.P.D.T. (Single Pole Double Throw), 208 volts auxiliary switch on both the normal and emergency-sides, operated by the transfer switch. These auxiliary switches shall be factory wired to an easy access terminal block and may be used to monitor transfer switched position for controlling indicator lamps or other peripheral equipment. Specify additional auxiliary relays as required to provide proper system functions.
- (j) Complete AL-CU (Aluminum-Copper) lugs, UL listed and CSA Certified shall be provided for both normal and emergency load positions. For 150A and larger transfer switches, top or bottom feed for load connections shall be provided for slimmer design, requiring less wall space. Load connections shall be field changeable either from top-to-bottom or bottom-to-top. Wiring space at normal, emergency and load lugs inside the transfer with cabinet shall comply with 1984 NEC Table 373-6(b). Full rated neutral bar with lugs for normal, emergency and load conductors shall be provided inside the cabinet.
- (k) Controls
  - (1) Control accessories, either electronic or relay shall be mounted in a separate small cabinet mounted on the inside of the main cabinet door. This is to allow for ease of service when the main cabinet lockable door is opened, but to prevent access by unauthorized personnel.

- (2) Control circuit disconnect plugs shall be provided to de-energize control circuits to avoid the hazards of electrical shock to personnel while making adjustments.
- (3) The Power Sentry electronic control, under voltage and time delay modules, shall be a printed circuit board for ease of service. The solid-state under voltage sensors shall simultaneously monitor all phases of the normal and emergency power sources to provide field adjustable range sensors for specific applications. Voltage pickup settings shall be adjustable from a minimum of 85% to a maximum of 100% of nominal voltage. Voltage dropout settings shall be adjustable from a minimum of 74% to a maximum of 98% of the pickup setting with a fixed dropout time delay of 0.5 second. Voltage sensors shall be of the temperature compensated type, for maximum deviation over the temperature range of -32° C (-25° F) to 79° C (175° F). Voltage sensors shall allow for adjustment to sense partial, even where motor feedback voltages exist.
- (4) Three-phase, non-adjustable normal source loss relay plus time delays (Start - adjustable 0.5 to 5.0 seconds, Retransfer - adjustable 3.0 to 30 minutes, Stop - non-adjustable 5 minutes, and transfer - non-adjustable 0.5 seconds).
- (5) Controls shall signal the emergency power system to start upon signal from normal source voltage sensors. Solid-state time delay start shall avoid nuisance engine-generator set start-ups on momentary voltage dips or interruptions.
- (6) The transfer switch shall transfer the load to the emergency power system after the engine-generator set reaches proper voltage and frequency and has stabilized.
- (7) The transfer switch shall control the engine-generator set to allow the set to start and transfer the load within 10 seconds after a normal source power failure. It shall be the responsibility of the transfer switch supplier to meet this requirement.
- (8) The transfer switch shall retransfer the load to the normal source after normal source power is restored, allowing normal source to stabilize before retransfer and shall allow staggered retransfer of loads in multiple transfer switch systems.
- (9) The controls shall signal the engine-generator set(s) to stop after load retransfer to the normal source, but shall maintain the availability of the emergency source in the event that the normal source fails shortly after retransfer. The controls shall allow the engine-generator set(s) to run unloaded for a cool-down period prior to shutdown.

- (10) The controls shall provide an immediate automatic retransfer of the load from the emergency source to the normal source, if the emergency source fails, when the normal source is available.
  - (11) The transfer switch operating power for transfer and retransfer shall be obtained from the source to which the load is being transferred.
  - (12) Provide Exerciser clock to set day-of-week (one-week dial minimum), time-of-day, and duration-of-time of engine-generator set exercise. A period with/without load selector switch is optional. Exerciser clock is required for Limited 5-year warranty.
  - (13) Provide Manual-Automatic retransfer selector switch. After normal source is restored, this switch provides either manual-automatic retransfer after the retransfer time delay has expired in the automatic position, or manual retransfer at a time selected by an operator.
- (I) Test Switch
- (1) Test - Simulated normal source power loss to control unit for testing engine-generator set capability, including transfer of load if so equipped. Control system shall provide for system test without load transfer when specified.
  - (2) Normal - Normal operating position and also restores the system to standby operation; and if load was transferred, retransfer load from emergency to normal source after test and time delays.
  - (3) Retransfer - Spring-loaded momentary position of switch, that overrides retransfer time delay to cause the immediate return to the normal source after a test or actual power outage.

**D. SPECIFIC DETAILED INSTALLATION REQUIREMENTS FOR DR. CHARLES R. DREW ELEMENTARY SCHOOL**

- 1. Contractor shall be responsible for all generator project requirements to complete this project including all design service, drawings, permits, utility company requirements including all power outages, gas service upgrades, etc. to complete the installation and operation of the new emergency generator system in accordance with the most recently adopted codes and requirements, NEC, Montgomery County Government and local utility company requirements and AHJ.
- 2. The contractor shall provide and install a new MCPS approved natural gas generator 120/208 volts. The generator shall be a minimum of 100 KW or larger to meet the calculated specified load requirements. The new generator is to be installed outside at the rear of the gymnasium. A new fence shall be installed around the new generator.
- 3. The generator shall be monitored by the fire alarm system as required by the Fire Marshal. All related cost to modify the fire alarm system shall be included in bid price. All fire alarm work must be completed by a Montgomery County Public School approved and Licensed



Fire Alarm Contractor. All wiring shall be in EMT conduit between the fire alarm panel and generator equipment.

4. The Contractor shall size, provide and install a new natural gas line to fuel new generator. Contractor is responsible for gas upgrade (if needed) and all inspections of the mechanical (gas) install. Per Washington Gas, the 5m meter and 2" service line is adequate to handle a total load of 4,511 cfh. The Contractor will be responsible to change the regulator from a 7" W.C. standard pressure to 2psi high pressure regulator and call for an inspection of the mechanical install.
5. Contractor is responsible for all exhaust work to meet code. Exhaust system is to have a flapper closer installed to prevent water and debris from entering exhaust system. Generator exhaust shall extend 3' above roof line if unit is less than 20' away from existing building. The Contractor shall be responsible for all required trade permits.
6. The contractor shall provide and install two (2) new ATS switches, associated panels and transformers. New ATS, panels transformers etc. to be located in existing generator room or area approved by MCPS.
7. The contractor shall provide and install a quick connection tap box in accordance with NEC 2017, Article 700.10N4. MCPS approved model: **Lake Shore Electric Model #QCM Series**
  - a. One (1) Life Safety ATS, 120/208 volt, 3 phase rated at 150 amp minimum
  - b. One (1) Life Safety Distribution Panel 120/208 volt, 3 phase, 30 space, minimum with a 150 amp minimum Main Breaker.
8. The contractor shall provide Life Safety emergency power for the following equipment;
  - a. Emergency night light circuits throughout facility
  - b. Fire Alarm Control panel and booster panels
  - c. All restroom lighting (students and staff)
  - d. Facilities Main Public Address Systems
  - e. Security System
  - f. All exit and emergency lighting throughout facility
  - g. Main electric room and boiler room lighting
  - h. One (1) light in Main Office closet to center of office
  - i. Facilities main computer server
9. The contractor shall provide and install the following equipment and components for a complete Non-Life Safety Electrical System;
  - a. One (1) Non-Life Safety ATS, 120/208 volt, 3 phase rated at 150 amp minimum.
  - b. One (1) Non-Life Safety Distribution Panel 120/208 volt, 3 phase, 30 space (minimum) with a 150 amp minimum Main Breaker
10. The contractor shall provide Non-Life Safety emergency power for the following equipment;
  - a. Health room refrigerator

- b. Boiler #1 and associated circulator pump
  - c. Boiler #2 and associated circulator pump
  - d. One (1) walk-in freezer and associated equipment
  - e. One (1) walk-in refrigerator and associated equipment
  - f. GFCI receptacle located at or near new generator
  - g. Block Heater for new generator
  - h. Battery Charger for new generator
12. The contractor shall provide and install generator remote Annunciator panel to be located in the Building Service Managers office.
13. All conduits installed underground between building and generator shall be rigid PVC conduit. However, all 90-degree elbows and conduits existing the ground up to three (3') feet above grade shall be rigid metallic conduit.
14. The contractor shall be responsible for demolition and disposal of existing generator and equipment after checking with MCPS for surplus. Contractor shall be responsible for demolition of unused louvers unused gas piping, unused housekeeping pads, patching, fire stopping and all required repairs to match existing conditions and materials.
15. The contractor shall provide manufacture documents provided with all equipment provided, load bank, transfer testing, and all required MCPS staff training after project is completed.
16. See bid documents for General Conditions, Contract Administration and General Detailed Specification requirement for MCPS.

**E. SPECIFIC DETAILED INSTALLATION REQUIREMENTS FOR MONOCACY ELEMENTARY SCHOOL**

1. The contractor shall be responsible for all generator project requirements to complete this project including all design service, drawings, permits, propane supplier requirements including all power outages, propane gas upgrades, etc. to complete the installation and operation of the new emergency generator system in accordance with the recent adopted codes and requirements, NEC, Montgomery County Government, and local utility company requirements and AHJ.
2. The contractor shall provide and install a new MCPS approved propane gas generator, 277/480 volts. The generator shall be a minimum of 100 KW or larger to meet the calculated specified load requirements. The new generator shall be installed outside adjacent to the existing generator location or location approved by MCPS. A new fence shall be installed around the new generator as required.
3. The generator shall be monitored by the fire alarm system as required by the Fire Marshal. All related cost to modify the fire alarm system shall be included in the bid price. All fire alarm work must be completed by a Montgomery County Public School approved and licensed fire alarm contractor. All wiring shall run in EMT conduit between the fire alarm panel and generator equipment.

4. The contractor shall size, provide and install a propane gas line to fuel new generator utilizing an existing propane storage tank. If propane tank up size is required contractor shall notify MCPS immediately, MCPS will be responsible to pay for tank up size. Contractor shall be responsible for all inspections of the mechanical (gas) install.
5. Contractor is responsible for all exhaust work to meet code (if needed). Exhaust stem is to have a flapper closer installed to prevent water and debris from entering exhaust system. The Contractor shall be responsible for all required trade permits.
6. The contractor shall provide and install two (2) new ATS switches, associated panels and transformers, new ATS, panels and transformers located in the boiler room, electrical room per MCPS approved location. Provide and install a quick connect option as required in NEC 700 (this is required for life safety equipment and circuitry).
7. The contractor shall provide and install the following equipment and components for a complete Life Safety Electrical system;
  - a. One (1) Life Safety ATS, 277/480 volt, 3 phase rated at 150 amp minimum
  - b. One (1) Life Safety Distribution Panel 277/480 volt, 3 phase, 30 space with a 150 amp minimum Main Breaker
  - c. One (1) Life Safety step down transformer, 277/480 volt to 120/208 volt
  - d. One (1) Life Safety Distribution panel 120/208 volt, 3 phase, 30 space with a 150 amp Main Breaker
8. The contractor shall provide Life Safety emergency power for the following equipment;
  - a. Night light circuits throughout facility
  - b. Fire Alarm Control panel and booster panels
  - c. All restroom lighting (students and staff)
  - d. Public Address Systems
  - e. Security System
  - f. All exit and emergency lighting throughout facility
  - g. Main electric room and boiler room lighting
  - h. One (1) light in Main office closet to center of office
  - i. Facilities main computer server
  - j. Telephone System
9. The contractor shall provide and install the following equipment and components for a complete Non-Life Safety Electrical system;
  - a. One (1) Non-Life Safety ATS, 277/480 volt, 3 phase rated at 150 amp minimum
  - b. One (1) Non-Life Safety distribution panel 277/480 volt, 3 phase, 30 space with a 150 amp minimum Main Breaker
  - c. One (1) Non-Life Safety step down transformer, 277/480 volt to 120/208 volt
  - d. One (1) Non-Life Safety Distribution Panel 120/208 volt, 3 phase, 30 space with a 150 amp Main Breaker.

10. The contractor shall provide Non-Life Safety emergency power for the following equipment;
  - a. Health room refrigerator
  - b. Boiler #1 and associated circulator pump
  - c. Boiler #2 and associated circulator pump
  - d. One (1) Walk-in freezer and associated equipment
  - e. One (1) Walk-in refrigerator and associated equipment
  - f. GFCI receptacle located at new generator
  - g. Block Heater for new generator
  - h. Battery Charger for new generator
11. The contractor shall provide and install generator remote annunciator panel to be located in the Building Service Manager's office.
12. All conduits installed underground between building and generator shall be rigid PVC conduit. However, all 90' degree elbows and conduits existing the ground up to three (3') feet above grade shall be in rigid metallic conduit.
13. The contractor shall be responsible for demolition and disposal of existing generator and equipment after checking with MCPS for surplus. Contractor shall be responsible for demolition of unused louvers, unused gas piping, unused housekeeping pads, patching, fire stopping, and all required repairs to match existing conditions and material.
14. The Contractor shall provide manufacture documents with all equipment provided, load bank and transfer testing, and all required MCPS staff training after the project is completed.
15. The Contractor shall provide and install a quick connection tap box in accordance with NEC 2017, Article 700.10N4. MCPS approved model: **Lake Shore Electric Model #QCM Series.**

**F. SPECIFIC DETAILED INSTALLATION REQUIREMENTS FOR SUMMIT HALL ELEMENTARY SCHOOL**

1. The contractor shall be responsible for all generator project requirements to complete this project including all design service, drawings, permits, utility company requirements including all power outages, gas upgrades, etc. to complete the installation and operation of the new emergency generator system in accordance with the recent NEC, Montgomery County Government, and local Utility Company requirements and AHJ.
2. The contractor shall provide and install a new MCPS approved natural gas generator, 277/480 volts. The generator shall be a minimum of 100 KW or larger to meet the calculated specified load requirements. The new generator is to be installed outside adjacent to the existing generator location change shall be approved by MCPS. A new fence shall be installed around new generator to defined per site walk.
3. The generator shall be monitored by the fire alarm system as required by the Fire Marshal. All related cost to modify the fire alarm system shall be included in bid price. All fire alarm work must be completed by Montgomery County Public Schools, approved and licensed fire

alarm contractor. All wiring shall run in EMT conduit between the fire alarm panel and generator equipment.

4. The contractor shall size, provide and install a new gas line to fuel new generator utilizing an existing piping assembly located outside of the boiler room wall. Contractor is responsible for gas upgrade (if needed) and all inspections of the mechanical (gas) installation. The Contractor is responsible for all required trade permits. Washington Gas has determined that the service piping and pressure is sufficient, but the meter for the existing generator is not adequate; as a result, a new meter is required for the new generator load. There will be no charge for the meter upgrade.
5. Contractor is responsible for all exhaust work to meet code (if needed). Exhaust stem is to have a flapper closer installed to prevent water and debris from entering exhaust system. The Contractor shall be responsible for all required trade permits.
6. The Contractor shall provide and install two (2) NEW ATS switches, associated panels and transformers. New ATS, Panels and transformers to be located in boiler room, electrical room per MCPS approved location.
7. The contractor shall provide and install the following equipment and components for a complete Life Safety electrical system;
  - a. One (1) Life Safety ATS, 277/480 volt, 3 phase rated at 150 amp minimum
  - b. One (1) Life Safety distribution panel 277/480 volt, 3 phase, 30 space (minimum) with a 150 amp minimum Main Breaker
  - c. One (1) Life safety step down transformer, 277/480 volt to 120/208 volt.
  - d. One (1) Life safety distribution panel 120/208 volt, 3 phase, 30 space with a 150 amp Main Breaker
8. The contractor shall provide Life Safety emergency power for the following equipment;
  - a. Night light circuits throughout facility
  - b. Fire alarm control panel and booster panels
  - c. All restrooms lighting (students and staff)
  - d. Public Address Systems
  - e. Security System
  - f. All exit and emergency lighting throughout facility
  - g. Main electric room and boiler room lighting
  - h. One (1) light in Main office closet to center of office
  - i. Facilities main computer server
  - j. Telephone System
9. The contractor shall provide and install the following equipment and components for a complete Non-Life Safety Electrical System;
  - a. One (1) Non-Life Safety ATS, 277/480 volt, 3 phase rated at 150 amp minimum
  - b. One (1) Non-Life Safety Distribution Panel 277/480 volt, 3 phase, 30 space minimum with a 150 amp minimum Main Breaker
  - c. One (1) Non-Life Safety step down transformer, 277/480 volt to 120/208 volt

- d. One (1) Non-Life Safety Distribution Panel 120/208 volt, 3 phase, 30 space with a 150 amp Main Breaker
- 10. The contractor shall provide Non-Life Safety emergency power for the following equipment;
  - a. Health room refrigerator
  - b. Boiler #1 and associated circulator pump
  - c. Boiler #2 and associated circulator pump
  - d. One (1) Walk-in refrigerator and all associated equipment
  - e. One (1) Walk-in freezer and all associated equipment
  - f. GFCI Receptacle located at or near new generator
  - g. Block heater for new generator
  - h. Battery charger for new generator
- 11. The contractor shall provide and install generator remote annunciator panel to be located in the building service Managers office.
- 12. All conduits installed underground between buildings and generator shall be rigid PVC conduit. However, all 90' degree elbows and conduits exiting ground up to three (3') feet above grade shall be rigid metallic conduit.
- 13. The contractor shall be responsible for demolition and disposal of existing generator and equipment after checking with MCPS for surplus. Contractor shall be responsible for demolition of unused louvers, unused gas piping, unused housekeeping pads, patching, fire stopping, and all required repairs to match existing conditions.
- 14. Contractor shall provide manufacturer documents with all equipment provided, load bank and transfer testing, and all required MCPS staff training after project is completed.
- 15. The Contractor shall provide and install a quick connection tap box in accordance with NEC 2017, Article 700.10N4. MCPS approved Model: **Lake Shore Electric Model #QCM Series.**
- 16. See bid documents for General Condition, Contract Administration and General Detailed Specification requirements for MCPS.

**G. SPECIFIC DETAILED INSTALLATION REQUIREMENTS FOR WALT WHITMAN HIGH SCHOOL**

- 1. The contractor shall be responsible for all generator project requirements to complete this project including all design service, drawings, permits, utility company requirements including all power outages, etc. to complete the installation and operation of the new emergency generator system in accordance with the most recently adopted codes and requirements, NEC, Montgomery County Government, and Local Utility Company requirements and AHJ.
- 2. The contractor shall provide and install a new MCPS approved natural gas generator, 277/480 volts. The generator shall be a minimum of 200 KW or larger to meet the calculated specified



load requirements. The new generator is to be installed outside location in area approved by MCPS. A new fence shall be installed around the new generator.

3. The generator shall be monitored by the fire alarm system as required by the Fire Marshal. All related cost to modify the fire alarm system shall be included in bid price. All fire alarm work must be completed by a Montgomery County Public school approved and licensed fire alarm contractor. All wiring shall be in EMT conduit between the fire alarm panel and generator equipment.
4. The contractor shall size, provide and install a new natural gas line to fuel new generator. Contractor is responsible for gas upgrade (if needed) and all inspections of the mechanical (gas) installation.
5. Contractor is responsible for all exhaust work to meet code. Exhaust stem is to have a flapper closer installed to prevent water and debris from entering exhaust system. Generator exhaust shall extend 3' above roof line if unit is less than 20' away from existing building. The Contractor shall be responsible for all required trade permits.
6. The contractor shall provide and install two (2) new ATS switches, associated panels and transformers. New ATS, panels and transformers etc. to be located in existing generator room or TBD.
7. The Contractor shall provide and install a quick connection tap box in accordance with NEC 2017, Article 700.10N4. MCPS approved model: **Lake Shore Electric Model # QCM Series**
8. The contractor shall provide and install the following equipment and components for a complete Life Safety electrical system;
  - a. One (1) Life Safety ATS, 277/480 volt, 3 phase rated at 200 amp minimum
  - b. One (1) Life Safety Distribution Panel 277/480 volt, 3 phase, 36 space (minimum) With a 200 amp minimum Main Breaker
  - c. One (1) Life Safety step down transformer, 277/480 volt to 120/208 volt
  - d. One (1) Life Safety Distribution Panel 120/208 volt, 3 phase, 36 space with a 200 amp Main Breaker
9. The contractor shall provide Life Safety emergency power for the following equipment;
  - a. Night light circuits throughout facility
  - b. Fire Alarm Control panel and booster panels
  - c. All Restroom lighting (students and staff)
  - d. Facilities main Public Address system
  - e. Security System
  - f. All exits and emergency lighting throughout facility
  - g. Main electric room and boiler room lighting
  - h. One (1) light in Main Office closet to center of office
  - i. Facilities main computer server
  - j. Telephone system
10. The contractor shall provide and install the following equipment and components for a complete Non-Life Safety electrical system;

- a. One (1) Non-Life Safety ATS, 277/480 volt, 3 phase rated at 200 amp minimum
  - b. One (1) Non-Life Safety Distribution panel 277/480 volt, 3 phase, 30 space with a 150 amp minimum Main Breaker
  - c. One (1) Non-Life Safety step down transformer, 277/480 volt to 120/208 volt
  - d. One (1) Non-Life Safety Distribution panel 120/208 volt, 3 phase, 36 space with a 200 amp Main Breaker
11. The contractor shall provide Non-Life Safety emergency power for the following equipment;
    - a. Health room refrigerator
    - b. Boiler #1 and associated circulator pump
    - c. Boiler #2 and associated circulator pump
    - d. One (1) Walk-in refrigerator and all associated equipment
    - e. One (1) Walk-in freezer and all associated equipment
    - f. GFCI Receptacle located at or near new generator
    - g. Block Heater for new generator
    - h. Battery Charger for new generator
  12. The contractor shall provide and install Generator Remote Annunciator panel to be located in the Building Service Managers office.
  13. All conduits installed underground between building and generator shall be rigid PVC conduit. However, all 90° degree elbows and conduits existing the ground up to three (3') feet above grade shall be rigid metallic conduit.
  14. The contractor shall be responsible for demolition and disposal of existing generator and equipment after checking with MCPS for surplus. Contractor shall be responsible for demolition of unused louvers, unused gas piping, unused housekeeping pads, patching, fire stopping and all required repairs to match existing conditions and material.
  15. The contractor shall provide manufacture documents provided with all equipment, load bank, transfer testing and all required MCPS staff training after project completion.
  16. See bid documents for General Condition, Contract Administration and General Detailed Specifications requirement for MCPS.

## **H. FENCES SPECIFICATIONS**

### **A. GENERAL**

1. **All work to be in accordance with Chain Link Fence Manufacturers Institute (CLFMI)** standard and specifications for installation and materials, and/or the Maryland State Highway Administration "Standards and Specifications for Construction and Materials" or as amended in the detailed specifications herein.
2. Unless otherwise indicated, all mesh material shall be PVC thermally fused coating and all pipe and rails shall be Ameristar HT40 polyester coated or equal.

**B. MATERIAL QUALITY ASSURANCE**

Provide chain link fence as follows:

1. No. 9-gauge with 0.148" core and 0.162" finished diameter
2. The maximum variation for the steel core wire shall be +0.-005"
3. The minimum break strength of the wire covered under these specifications shall be 1290#
4. The thickness of the PVC coating shall be 0.006" minimum and 0.10" maximum
5. All cut ends shall be factory coated with black PVC finish

**C. MATERIALS**

1. Fence and Gate ASTM Specifications

Chain link fences and gates herein specified shall conform to ASTM specification F6678-84-Class 2B

2. Certification

The successful bidder and/or the materials supplier shall submit certification to MCPS that all materials meet or exceed all stipulated specifications.

3. Dimensions

Dimensions for formed pipe, roll-formed, and H-sections are outside dimensions (O.D)

4. Fabric

a. Vinyl coated steel fabric shall meet requirements of ASTM – F668 Class 2B. Samples of fence fabric shall be submitted to MCPS prior to installation. Core wire shall be 9-gauge (.120") in a 2" Core wire shall be galvanized in accordance with ASTM A-641-71A to meet a minimum weight of zinc coating of 0.30 oz./S.F. The thickness of the fusion-bonded vinyl coating shall be 6 to 10 mils. All fabric shall have both selvages knuckled top and bottom. There shall be no splices in the fabric between posts or rails.

b. Fabric furnished shall be on-piece fabric widths for all fencing.

5. Galvanize Steel Framework

a. Schedule 40 Steel Pipe – Standard weight schedule-40 steel pipe shall conform to ASTM A-120 and be hot-dipped galvanized with the zinc coating weighing not less than 1.8 oz./S.F.

INDUSTRY O.D.	O.D. (INCHES)	WEIGHT (#FT)
1-5/8"	1,660	2.27

2"	1,900	2.72
2- 1/2"	2,375	3.65
3"	2,875	5.79
4"	4,000	9.11

b. Power Coated Framework

The manufactured frame work shall be subject to a complete thermal stratification coating process (multistage, high-temperature, multi-layer) including, as a minimum, a six-stage pretreatment/wash (with zinc phosphate), an electrostatic spray application of an epoxy base, and a separate electrostatic spray application of a polyester finish. The polyester finish coat shall not fade, crack, blister or split under normal use. Power coated framework shall be equal to Ameristar HT-40 Industrial weight.

6. Hardware and Accessories

All hardware (tension bands, tension bards, post caps, loop caps, sleeves, truss rods, turnbuckles, end clamps, corner boulevards, tension wire, ties, hog rings, hinges.

7. Stretcher Bars

Bars shall be open on-piece length equal to the full height of the fabric, with a minimum cross-section of 3/16" X 3/4", Provide one stretcher bar per gate and end post, and two per corner and pull post (except where fabric is integrally woven into posts).

8. Stretcher Bar Bands

Space not over 15" O.C. to secure stretcher bars to end, corner, pull, and gate posts.

9. Tension Wire

Wire shall be 7-gauge, installed along the bottom of the fence to reinforce the fabric.

10. Gates

Gates shall be fabricated as follows:

- a. Swing gates shall have perimeter frames of 2"/1.90" O.D. pipe or 2" square aluminum tubing welded at all corners.
- b. Provide horizontal and vertical members to ensure proper gate operation and for attachment of fabric, hardware, and accessories.
- c. Space so that frame members are not more than 8' part.

- d. Assembles gate frames by welding or with special fittings, rivets for rigid connections.
- e. Use same fabric as for fence, unless otherwise indicated.
- f. Install fabric with stretcher bars at vertical edges. Bars may also be used at top and bottom edges.
- g. Attach stretcher bars to gate frames at no more than 15" O.C.
- h. Attach hardware to provide security against removal or breakage.

#### 11. Gate Hardware

Furnish the following hardware and accessories for each gate:

##### a. Hinges

- 1) Size and material to suite gate size, non-lift off type, offset to permit 180 degrees gate opening.
- 2) Provide 1 ½ pairs of hinges for each gate leaf over 6' in height.

##### b. Latch

Forked type or plunger-bar type to permit operation from either side of gate, with padlock eye as integral part of latch.

#### 12. Wire Ties

- a. Use 9-gauge aluminum wire ties spaced 24" O.C. for tying fabric to line posts, rails and braces.
- b. Use exterior grade hog rings spaced 24" O.C. for tying fabric to tension wires.

#### 13. Concrete

Concrete shall have the following characteristics:

- a. 3500 PSI
- b. 3" Slump
- c. 2% - 4% air entrained

### D. INSTALLATION

Unless otherwise instructed, installation and erection shall not start before final grading is completed.

#### 1. Excavation

- a. Drill holes (for posts of diameters and spacing as needed) in firm, undisturbed or compacted soil.
- b. Holes shall be excavated to a minimum of four times the diameter of the post used.
- c. Unless otherwise indicated, hole depths shall be approximately 3" lower than the post bottom, with post bottom set not less than 36" below finish grade surface.

2. Setting Posts

- a. Center and align posts in hole 3" above bottom of excavation.
- b. Place concrete around posts and vibrate or tamp for consolidation. Concrete shall be brought to grade.
- c. Check each post for vertical and top alignments and hold in position during placement and finishing operations.

3. Top Rails

- a. Run rails continuously through post caps, bending to radius for curved runs.
- b. Provide expansion couplings as recommended by fencing manufacturer.

4. Brace Assemblies

Install braces so posts are plumb when diagonal rod is under proper tension.

5. Fabric

- a. Leave approximately 2" between finish grade and bottom salvage, unless otherwise noted.
- b. Pull fabric taut and tie to posts, and tension wires.
- c. Install fabric on security side of fence, and anchor to framework so that fabric remains in tension after pulling force is released.
- d. Fence is to touch the top of the pavement for tennis and basketball courts.

6. Stretcher Bars

Thread through or clamp to fabric – 4" O.C., and secure to posts with metal bands spaced 15" O.C.

7. Gates



- a. Use U-Shape wire, conforming to diameter of pipe to which attached clasping pipe and fabric firmly with ends twisted at least two full turns.
  - b. Install ground-set items in concrete for anchorage, as recommended by fence manufacturer.
  - c. Adjust hardware for smooth operation, lubricate where necessary.
8. Tie Wires
- a. Use U-Shape wire, conforming to diameter of pipe to which attached clasping pipe and fabric firmly with ends twisted at least two full turns.
  - b. Bend wire to minimize hazard to persons and/or clothing.
9. Fasteners
- Install nuts for tension bands and hardware bolts on side of fence opposite to fabric side.

**E. FENCING AND RELATED PRODUCT MANUFACTURES**

The fence, post and gate framing materials shall be as manufactured by the following:

1. Allied Tube & Conduit Corp.
2. Master Halco, Inc.
3. Davis Walker Corp.
4. Dominion Fence and Wire Products
5. Merchants Metals
6. Stephens Piping and Steel
7. United States Steel
8. Ameristar