



**CONTRACT DOCUMENTS  
AND  
SPECIFICATIONS**

**DEPARTMENT OF ENVIRONMENTAL  
SERVICES**

**FOR**

**INSTALLATION OF ELECTRIC  
SERVICE AT MATERIAL  
RESOURCE FACILITY**

**Bid No. 140-2019**

**Prepared By: Staggs & Fischer Consulting Engineers Inc**

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**CONTRACT DOCUMENTS**

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**PART 1**

**ADVERTISEMENT FOR BIDS**

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## ADVERTISEMENT FOR BIDS

### 1. INVITATION

Sealed proposals for the following work will be received by the Lexington-Fayette Urban County Government (LFUCG) until 2:00 p.m., local time, **January 17, 2020**, for furnishing all labor and/or materials and performing all work as set forth by this advertisement, conditions (general and special), IonWave Q&A, specifications, and/or the drawings prepared by Staggs & Fisher Consulting Engineers Inc for Lexington-Fayette Urban County Government, Department of Environmental Quality. Immediately following the scheduled closing time for reception of bids, all proposals which have been submitted in accordance with the above will be publicly opened and read aloud.

### 2. DESCRIPTION OF WORK

Consisting of the construction and/or furnishing of items as listed in the Bid Schedule beginning on page P-6, Part III, Form of Proposal, of this document, for the Installation of Electric Service at Material Recovery Facility project, Lexington-Fayette County, Kentucky. **Work must be completed during non-work hours, evenings and weekends.**

### 3. OBTAINING PLANS, SPECIFICATIONS, AND BID DOCUMENTS

Specifications, Plans, and Bid Documents may be examined at the following places:

LFUCG

Division of Central Purchasing  
200 East Main Street, Third Floor, Rm 338  
Lexington, Kentucky 40507  
(859) 258-3320

<https://lexingtonky.ionwave.net>

**4. METHOD OF RECEIVING BIDS**

Bids will be received from Prime Contracting firms on a **Lump Sum** for total Project. The Bidder must include a price for all bid items to be considered. Bids shall be submitted in the manner and subject to the conditions as set forth and described in the Instruction to Bidders and Special Conditions.

Sealed bids shall be clearly marked on the outside of the container as follows: Company Name and Address, Bid Invitation Number, and the Project Name. Bids are to remain sealed until official Bid closure time.

Mailed bids/proposals should be sent to the Director, Division of Central Purchasing, 200 East Main Street, Lexington, KY 40507.

**5. METHOD OF AWARD**

The Contract, if awarded, will be to the lowest, qualified responsible bidder for the total project whose qualifications indicate the award will be in the best interest of the OWNER and whose bid/proposal complies with all the prescribed requirements. No Notice of Award will be given until the OWNER has concluded such investigation as deemed necessary to establish the responsibility, qualifications and financial ability of Bidders to do the work in accordance with the Contract Documents to the satisfaction of the OWNER within the time prescribed. The OWNER reserves the right to reject the Bid of any Bidder who does not pass such investigation to the OWNER's satisfaction. In analyzing Bids, the OWNER may take into consideration alternate and unit prices, if requested by the Bid forms.

**6. BID WITHDRAWAL**

No bidder may withdraw his bid for a period of sixty (60) calendar days after the closing date for receipt of bids. Errors and omissions will not be cause for withdrawal of bid without forfeit of bid bond. Bids may be withdrawn in person prior to the closing date of receipt of bids.

**7. BID SECURITY**

If the bid is \$50,000 or greater, bid shall be accompanied by a certified /cashier's check or bid bond payable to the Lexington-Fayette Urban County Government in an amount not less than Five Percent (5%) of the base bid. Bid bond shall be executed by a Surety Company authorized to do business in the Commonwealth of Kentucky and countersigned by a licensed Kentucky Resident Agent, representing the Surety Company. Bid Bonds are not required for bids under \$50,000. A certified check or cashier's check is also acceptable forms of bid security.

**8. SUBMISSION OF BIDS**

CONTRACTORS shall submit their bids to the Lexington-Fayette Urban County Government, Division of Purchasing, Third Floor, 200 East Main Street, Lexington, Kentucky 40507. Bids shall be submitted in a sealed envelope not later than 2:00 p.m. local

time, **January 17, 2020**. Sealed proposals shall be clearly marked on the outside of the container as follows: Company Name and Address, Bid Invitation Number, and Project Name to be opened at 2:00 p.m. local time **January 17, 2020**. Bids are to remain sealed until official Bid closure time. Bids received after the scheduled closing time for receipt of bids will not be considered and will be returned unopened.

**9. RIGHT TO REJECT**

The Lexington-Fayette Urban County Government reserves the right to reject any and all bids and to waive all informalities and/or technicalities where the best interest of the Lexington-Fayette Urban County Government may be served.

**10. NOTIFICATION TO THE LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT FOR AFFIRMATIVE ACTION PLAN AND CURRENT WORKFORCE**

The successful bidder must submit with their bid the following items to the Lexington-Fayette Urban County Government:

1. Affirmative Action Plan for his/her firm.
2. Current Workforce Analysis Form.

Failure to submit these items as required herein may result in disqualification of the Bidder from the award of the contract.

All submissions should be directed to:

Lexington-Fayette Urban County Government  
Division of Purchasing  
200 East Main Street, 3<sup>rd</sup> Floor, Room 338  
Lexington, Kentucky 40507

**11. NOTICE CONCERNING MWDBE and Veteran Goals**

Notice of requirement for Affirmative Action to ensure Equal Employment Opportunities and Disadvantaged Business Enterprises (DBE) Contract participation. Disadvantaged Business Enterprises (DBE) consists of Minority-Owned Business Enterprises (MBE) and Woman-Owned Business Enterprises (WBE).

The Lexington-Fayette Urban County Government has set a goal that not less than ten percent (10%) of the total value of this Contract be subcontracted to Disadvantaged Business Enterprises, which is made up of MBEs and WBEs, and set a goal that not less than three percent (3%) of the total value of this Contract be subcontracted to Veteran-Owned Small Businesses. The goals for the utilization of Disadvantaged Business Enterprises and Veteran-Owned Small Businesses as subcontractors are recommended goals. Contractor(s) who fail to meet such goals will be expected to provide written explanations to the Director of the Division of Purchasing of efforts they have made to

accomplish the recommended goal, and the extent to which they are successful in accomplishing the recommended goal will be a consideration in the procurement process. Depending on the funding source, other DBE goals may apply.

For assistance in locating Disadvantaged Business Enterprise and Veteran-Owned Small Businesses as Subcontractors contact:

Sherita Miller, Division of Central Purchasing  
Lexington-Fayette Urban County Government  
200 East Main Street, 3rd Floor, Room 338  
Lexington, Kentucky 40507  
859-258-3323  
[smiller@lexingtonky.gov](mailto:smiller@lexingtonky.gov)

**12. PRE-BID MEETING**

A non-mandatory pre-bid meeting will be held Monday, January 6, 2020, 10:00 am, 360 Thompson Rd, Lexington, KY.

END OF SECTION

**PART II**  
**INFORMATION FOR BIDDERS**

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## PART II

### INFORMATION FOR BIDDERS

#### **1. RECEIPT AND OPENING OF BIDS**

The Lexington-Fayette Urban County Government (herein called the OWNER) invites bids from firms on the project described in the Advertisement for Bids. The OWNER will receive bids at the Division of Purchasing, at the time and in the manner set forth in the Advertisement for Bids, and the Bids will then be publicly opened and read aloud. The OWNER may consider informal any bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities or reject any and all bids. Any bid may be withdrawn prior to the scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered. No bidder may withdraw a bid within 60 days after the actual time and date of the bid opening, but OWNER may, in its sole discretion, release any bid and return the Bid Security prior to that date.

The Lexington-Fayette Urban County Government assumes no responsibility for bids that are not addressed and delivered as indicated above. Bids that are not delivered to the Division of Central Purchasing by the stated time and date will be rejected.

#### **2. PREPARATION OF BID**

Each bid must be submitted on the prescribed Form of Proposal. All blank spaces for the bid prices must be filled in, either in ink or typewritten, for both unit prices and extensions. Totals for each bid item must be added to show the total amount of the bid. Each bid must be submitted in a sealed envelope bearing on the outside the name of the bidder, their address, the name of the project, the invitation number and time and date for which the bid is submitted. Bids must be addressed to the Director of Purchasing, Lexington-Fayette Urban County Government, Third Floor, 200 East Main Street, Lexington, Kentucky 40507. If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed as specified above.

#### **3. SUBCONTRACTS**

The bidder is specifically advised that any person, firm, or other party to whom it is proposed to award a subcontract under this Contract must be acceptable to the OWNER. All proposed subcontractors must be identified on the Form of Proposal. Prior to the award of Contract, the OWNER or the OWNER'S representative will advise the CONTRACTOR of the acceptance and approval thereof or of any action necessary to be taken. Should any Subcontractor be rejected by the OWNER, the CONTRACTOR shall present a new name and/or firm to the OWNER at no change in the Contract Price.

#### 4. QUALIFICATION OF BIDDER

The OWNER may make such investigations as the OWNER deems necessary to determine the ability of the bidder to perform the Work, and the bidder shall furnish to the OWNER all such information and data for this purpose as the OWNER may request. The OWNER reserves the right to reject any bid if the evidence submitted by, or investigation of, such bidder fails to satisfy the OWNER that such bidder is properly qualified to carry out the obligations of the Contract and to complete the Work contemplated therein. Conditional bids will not be accepted.

In evaluating Bids, OWNER shall consider the qualifications of the BIDDERS, whether or not the Bids comply with the prescribed requirements, and alternatives and unit prices, as requested. OWNER may consider maintenance requirements, performance data, and disruption or damage to private property. It is OWNER'S intent to accept alternatives, if requested by the bid forms, in the order in which they are listed in the Bid Form but OWNER may accept or decline them in any order or combination. The contract, if awarded, will be awarded to the lowest, qualified, responsible BIDDER based upon OWNER'S evaluation which indicates that the award will be in the best interest of OWNER and the general public.

In the event there is any question as to the bidder's qualifications and ability to complete the work, a final determination will be made in accordance with a fair evaluation by the Urban County Government of the above listed elements.

- A. If the OWNER requires filling out a detailed financial statement, the bidder may provide its current certified financial statement(s) for the required time interval.
- B. Corporate firms are required to be registered and in good standing with the requirements and provisions of the Office of the Secretary of State, Commonwealth of Kentucky.
- C. Documents Required of CONTRACTOR - (1) A sworn statement signed by the President or owner of the Company regarding all current work in progress anywhere; (2) A document showing the percent of completion of each project and the total worth of each project; and (3) Documentation showing the percentage of the DBE employment levels on each project of the Bidder's current work force, and DBE participation levels for Subcontractors.
- D. Optional OWNER Requirements - The OWNER, at its discretion, may require the BIDDER/CONTRACTOR to provide: (1) a current detailed financial statement for a period including up to 3 prior years; (2) financial security or insurance in amounts and kinds acceptable to the OWNER to meet the financial responsibility requirements for the CONTRACTOR to indemnify the OWNER. (3) Additional information and/or DBE work force data, as well as DBE participation data.

**Each bidder agrees to waive any claim it has or may have against the Owner, the Consultant, and their respective employees, arising out of or in connection with the administration, evaluation, or recommendation of any bid.**

**5. BID SECURITY**

- A. Each bid must be accompanied by a bid bond prepared on a Form of Bid Bond and attached hereto, duly executed by the bidder as principal and having as surety thereon a surety company approved by the OWNER, in the amount of 5% of the bid. Such bid bond will be returned to the unsuccessful bidder(s) only upon written request to the Director of Central Purchasing within seven (7) days of opening of bids. Bid bond shall be made payable to the Lexington-Fayette Urban County Government. Bid security is not required for projects under \$50,000.
- B. Bonds shall be placed with an agent licensed in Kentucky with surety authorized to do business within the state. When the premium is paid for such coverage, the full commission payable shall be paid to such local agent who shall not divide such commission with any person other than a duly licensed resident local agent.

**6. LIQUIDATED DAMAGES FOR FAILURE TO ENTER INTO CONTRACT**

The successful bidder, upon his failure or refusal to execute and deliver the Contract and bonds required within ten (10) days after he has received notice of the acceptance of his bid, shall forfeit to the OWNER, as liquidated damages for such failure or refusal, the security deposited with his bid.

**7. TIME OF COMPLETION AND LIQUIDATED DAMAGES**

Bidder must agree to commence work on or before a date to be specified in a written "Notice to Proceed" from the OWNER and to fully complete the Project within the time as specified in the Contract. Bidder must agree also to pay \$ 200 per day thereafter deadline for final completion.

**8. EXAMINATION OF CONTRACT DOCUMENTS AND SITE**

- A. It is the responsibility of each Bidder before submitting a Bid, to (a) examine the Contract Documents thoroughly, (b) visit the site(s) to become familiar with local conditions that may affect cost, progress, performance or furnishing of the work, (c) consider Federal, State and Local laws and regulations that may affect cost, progress, performance or furnishing of the work, (d) study and carefully correlate Bidder's observations with the Contract Documents, and (e) notify Consultant of all conflicts, errors or discrepancies in the Contract Documents.
- B. Bidders should examine the requirements of section 4 of the General Conditions for information pertaining to subsurface conditions, underground structures, underground facilities, and availability of lands, easements, and rights-of-way. The completeness of data, presented in the Contract Documents, pertaining to subsurface conditions, underground structures, and underground facilities for the purposes of bidding or construction is not assured. The Bidder will, at Bidder's own expense, make or obtain any additional examinations, investigations, explorations, tests and studies and obtain any additional information and data which pertain to the physical

conditions (surface and subsurface) which may affect cost, progress, performance or furnishing of the Work and which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price, and other terms and conditions of the Contract Documents. On request in advance, OWNER will provide access to the site to conduct such explorations and tests as each Bidder deems necessary for submission of a bid. Bidder shall fill all holes, clean up and restore the site to its former condition upon completion of such explorations.

- C. The submission of a Bid will constitute an incontrovertible representation by the Bidder that Bidder has complied with every requirement of this paragraph 8; that without exception the Bid is premised upon furnishing and performing the Work required by the Contract Documents and such means, methods, techniques, sequences or procedures of construction as may be indicated in or required by the Contract Documents; and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

## 9. **ADDENDA AND INTERPRETATIONS**

No interpretation of the meaning of the Contract Documents will be made to any bidder orally. Every request for such interpretation should be in writing addressed to Central Purchasing, who in turn will have an Addendum issued for the Lexington-Fayette Urban County Government, and to be given consideration must be received prior to the Q&A deadline. Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the specifications. Acknowledgement of the receipt of addenda must be included with all submitted bids. Failure of any bidder to receive any such addendum or interpretation shall not relieve such bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the Contract Documents.

## 10. **SECURITY FOR FAITHFUL PERFORMANCE**

- A. Simultaneously with his delivery of the executed Contracts, the CONTRACTOR shall furnish a surety bond or bonds as security for the faithful performance of this Contract and for payment of all persons performing labor on the Project under this Contract and furnishing materials in connection with this Contract, as specified in the General Conditions. The surety on such bond or bonds shall be a duly authorized surety company satisfactory to the OWNER and authorized to do business in the Commonwealth of Kentucky.
- B. All bonds required by this Contract and laws of this State shall be placed with agents licensed in the State of Kentucky. When the premium is paid for such coverage's, the full commission shall be paid to such local agent who shall not divide such commission with any person other than a duly licensed resident local agent.
- C. **Contractor shall use standard Performance and Payment Bond forms such as documents provided with this contract book or AIA form A312-1984 (or later). Each document will be for 100% of the Contract Bid Amount.**

**11. POWER OF ATTORNEY**

Attorney-in-fact who signs bid bonds or contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.

**12. TAXES AND WORKMEN'S COMPENSATION**

The CONTRACTOR and subcontractor will be required to accept liability for payment of all payroll taxes, sales and use tax, and all other taxes or deductions required by local, state or federal law, such as old age pension, social security, or annuities measured by wages. Each shall carry Workmen's Compensation Insurance to the full amounts as required by Statutes and shall include the cost of all foregoing items in the proposal. The CONTRACTOR will not otherwise be reimbursed or compensated for such tax payments. The CONTRACTOR is urged to ascertain at his own risk his actual tax liability in connection with the execution or performance of his Contract.

**13. LAWS AND REGULATIONS**

The bidder's attention is directed to the fact that all applicable state laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the Project shall apply to the Contract throughout, and they will be deemed to be included in the contract, the same as though herein written out in full.

**14. EROSION AND SEDIMENT CONTROL AND PERMITS**

The CONTRACTOR and Subcontractors performing work on projects on behalf of the OWNER shall also comply with all applicable federal, state, and local environmental regulations and all requirements and conditions set forth in "special" permits including but not limited to Corp of Engineers 404 permits, 401 Water Quality Certifications, Stream Crossing and Floodplain Encroachment Permits as described in Part 4 General Conditions Paragraph 5.17.

**15. PREVAILING WAGE LAW AND MINIMUM HOURLY RATES**

Federal wage rates and regulations, if required for this Project, will be as described in the Special Conditions and appendices.

**16. AFFIRMATIVE ACTION PLAN**

The successful Bidder must submit with their bid, the following items to the Urban County Government:

1. Affirmative Action Plan of the firm
2. Current Work Force Analysis Form
3. Good Faith Effort Documentation

4. List of Disadvantaged Business Enterprise Subcontractors and the Dollar Value of each Subcontract

A Work Force Analysis Form shall be submitted for each Contract. Failure to submit these items as required herein may result in disqualification of the Bidder from award of the Contract.

All submissions should be directed to:

Director, Division of Central Purchasing  
Lexington-Fayette Urban County Government  
200 East Main Street, Third Floor  
Lexington, KY 40507

**17. CONTRACT TIME**

The number of calendar days within which the Work is to be substantially completed and ready for final payment (the Contract Time) is set forth in the Form of Proposal and the Agreement.

**18. SUBSTITUTE OR "OR-EQUAL" ITEMS**

The Contract, if awarded, will be on the basis of materials and equipment described in the Drawings or specified in the Specifications without consideration of possible substitute or "or-equal" items. Whenever it is indicated in the Drawings or specified in the Specifications that a substitute or "or-equal" item of material or equipment may be furnished or used by the CONTRACTOR if acceptable to the CONSULTANT and OWNER, application for such acceptance will not be considered by the CONSULTANT and OWNER until after the effective date of the Agreement. The procedure for submission of any such application by the CONTRACTOR and consideration by the CONSULTANT and OWNER is set forth in the General Conditions.

**19. ALTERNATE BIDS**

**Bidders shall submit alternate bids/proposals only if and when such alternate bids/proposals have been specifically requested in an Invitation for Bids.** If alternate bids/proposals are requested in an Invitation for Bids, the form of submission of such alternate bid and the conditions under which such alternate bids will be considered for award of a contract will be established in the Invitation.

Any Bidder who submits a bid incorporating an alternate proposal when alternate bids/proposals have not been requested in the Invitation for Bids shall have his/her bid rejected as non-responsive.

Any Bidder who submits a bid incorporating two (2) or more prices for an item or groups of items (unless such method of pricing is requested in the Invitation for Bids), or which imposes conditions for acceptance other than those established in the Invitation for Bids, shall have their bid rejected as non-responsive.

**20. SIGNING OF AGREEMENT**

When OWNER gives a Notice of Award to the successful Bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement with all other written Contract Documents attached. Within ten days thereafter, CONTRACTOR shall sign and deliver the required number of counterparts of the Agreement and attached documents to OWNER with the required Bonds, Certificate of Insurance, and Power of Attorney. The OWNER will deliver one fully signed counterpart to CONTRACTOR at such time as it has been signed by the Mayor.

**21. ASSISTANCE TO BE OFFERED TO DISADVANTAGED BUSINESS ENTERPRISE (MWDBE) CONTRACTORS AND VETERAN OWNED SMALL BUSINESSES**

**A. Outreach for MWDBE(s) and Veteran Owned Small Businesses (VOSB)**

The Lexington-Fayette Urban County Government (LFUCG) maintains a database of MWDBE contractors and Veteran Owned Small Businesses. When a LFUCG construction project is advertised for bidding, notices are sent to companies registered at <https://lexingtonky.ionwave.net>. The notices describe the project and indicate the deadline for submitting bids.

If you wish to be added to the LFUCG MWDBE contractor database, please contact:

Sherita Miller, Division of Central Purchasing  
Lexington-Fayette Urban County Government  
200 East Main Street, Room 338  
Lexington, Kentucky 40507  
smiller@lexingtonky.gov

B. Bid Bond Assistance for MWDBE(s)

For those MWDBE contractors who wish to bid on LFUCG project, bid bond assistance is available. This bid bond assistance is in the form of a “Letter of Certification” which is accepted by the LFUCG’s Division of Purchasing, in lieu of a bid bond. The “Letter of Certification” must be included in the bid package when it is submitted to the Division of Purchasing. The “Letter of Certification” will reference the specific project for which the bid is being submitted, and the time and date on which the bid is due. Bid bond assistance must be requested from the Lexington-Fayette Urban County Government’s Division of Central Purchasing.

C. Eligibility for Bid Bond Assistance for MWDBE(s)

In order to be eligible for any Bid bonding assistance, a MWDBE construction company must be owned or controlled at the level of 51% or more by a member or members of a minority group or females. Prior to receiving assistance, a statement providing evidence of ownership and control of the company by a member or members of a minority group or females must be signed by the Owner or corporate officer and by an attorney or accountant submitted to:

Sherita Miller, Division of Central Purchasing  
Lexington-Fayette Urban County Government  
200 East Main Street, Room 338  
Lexington, Kentucky 40507  
[smiller@lexingtonky.gov](mailto:smiller@lexingtonky.gov)

D. MWDBE and Veteran Subcontractors

The LFUCG will, upon request, assist prime contractors in the procurement of eligible DBE subcontractors in an effort to achieve a 10% minimum MWDBE and a 3% minimum Veteran goal.

For a list of eligible subcontractors, please contact:

Sherita Miller, Division of Central Purchasing  
Lexington-Fayette Urban County Government  
200 East Main Street, Room 338  
Lexington, Kentucky 40507  
[smiller@lexingtonky.gov](mailto:smiller@lexingtonky.gov)



## **22. LFUCG NON-APPROPRIATION CLAUSE**

Contractor acknowledges that the LFUCG is a governmental entity, and the contract validity is based upon the availability of public funding under the authority of its statutory mandate.

In the event that public funds are unavailable and not appropriated for the performance of the LFUCG's obligations under this contract, then this contract shall automatically expire without penalty to the LFUCG thirty (30) days after written notice to Contractor of the unavailability and non-appropriation of public funds. It is expressly agreed that the LFUCG shall not activate this non-appropriation provision for its convenience or to circumvent the requirements of this contract, but only as an emergency fiscal measure during a substantial fiscal crisis, which affects generally its governmental operations.

In the event of a change in the LFUCG's statutory authority, mandate and mandated functions, by state and federal legislative or regulatory action, which adversely affects the LFUCG's authority to continue its obligations under this contract, then this contract shall automatically terminate without penalty to the LFUCG upon written notice to Contractor of such limitation or change in the LFUCG's legal authority.

END OF SECTION

**PART III**  
**FORM OF PROPOSAL**

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**PART III**

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**Invitation to Bid No. 140-2019**

**Installation of Electric Service at Material Recovery Facility**

**1. FORM OF PROPOSAL**

Place: Lexington, Kentucky

Date: \_\_\_\_\_

The following Form of Proposal shall be followed exactly in submitting a proposal for this Work.

This Proposal Submitted by \_\_\_\_\_

\_\_\_\_\_  
(Name and Address of Bidding Contractor)

(Hereinafter called "Bidder"), organized and existing under the laws of the State of \_\_\_\_\_, doing business as \_\_\_\_\_  
"a corporation," "a partnership", or an "individual" as applicable.

To: Lexington-Fayette Urban County Government  
(Hereinafter called "OWNER")  
Office of the Director of Purchasing  
200 East Main Street, 3rd Floor  
Lexington, KY 40507

Gentlemen:

The Bidder, in compliance with your Invitation for Bids for **Installation of Electric Service at MRF** having examined the Plans and Specifications with related documents, having examined the site for proposed Work, and being familiar with all of the conditions surrounding the construction of the proposed Project, including the availability of materials and labor, hereby proposes to furnish all labor, materials, and supplies, and to construct the Project in accordance with the Contract Documents, within the time set forth therein, and at the lump sum and/or unit prices stated hereinafter. These prices are to cover all expenses incurred in performing the Work required under the Contract Documents, of which this proposal is a part. The OWNER will issue work orders for work to be performed under this Contract.

The Bidder hereby acknowledges receipt of the following addenda:

Addendum No. \_\_\_\_ Date \_\_\_\_\_

Addendum No. \_\_\_\_ Date \_\_\_\_\_

Addendum No. \_\_\_\_ Date \_\_\_\_\_

Addendum No. \_\_\_\_ Date \_\_\_\_\_

Addendum No. \_\_\_\_ Date \_\_\_\_\_

Addendum No. \_\_\_\_ Date \_\_\_\_\_

Addendum No. \_\_\_\_ Date \_\_\_\_\_

Addendum No. \_\_\_\_ Date \_\_\_\_\_

Insert above the number and the date of any Addendum issued and received. If none has been issued and received, the word "NONE" should be inserted.

**2. LEGAL STATUS OF BIDDER**

Bidder \_\_\_\_\_

Date \_\_\_\_\_

\* 1. A corporation duly organized and doing business under the laws of the State of \_\_\_\_\_, for whom \_\_\_\_\_, bearing the official title of \_\_\_\_\_, whose signature is affixed to this Bid/Proposal, is duly authorized to execute contracts.

\* 2. A Partnership, all of the members of which, with addresses are: (Designate general partners as such)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\* 3. An individual, whose signature is affixed to this Bid/Proposal (please print name)

\_\_\_\_\_  
\_\_\_\_\_

\*(The Bidder shall fill out the appropriate form and strike out the other two.)

**3. BIDDERS AFFIDAVIT**

Comes the Affiant, \_\_\_\_\_, and after being first duly sworn, states under penalty of perjury as follows:

1. His/her name is \_\_\_\_\_ and he/she is the individual submitting the bid or is the authorized representative of \_\_\_\_\_, the entity submitting the bid (hereinafter referred to as "Bidder").
2. Bidder will pay all taxes and fees, which are owed to the Lexington-Fayette Urban County Government at the time the bid is submitted, prior to award of the contract and will maintain a "current" status in regard to those taxes and fees during the life of the contract.
3. Bidder will obtain a Lexington-Fayette Urban County Government business license, if applicable, prior to award of the contract.
4. Bidder has authorized the Division of Central Purchasing to verify the above-mentioned information with the Division of Revenue and to disclose to the Urban County Council that taxes and/or fees are delinquent or that a business license has not been obtained.
5. Bidder has not knowingly violated any provision of the campaign finance laws of the Commonwealth of Kentucky within the past five (5) years and the award of a contract to the Bidder will not violate any provision of the campaign finance laws of the Commonwealth.
6. Bidder has not knowingly violated any provision of Chapter 25 of the Lexington-Fayette Urban County Government Code of Ordinances, known as the "Ethics Act."
7. Bidder acknowledges that "knowingly" for purposes of this Affidavit means, with respect to conduct or to circumstances described by a statute or ordinance defining an offense, that a person is aware or should have been aware that his conduct is of that nature or that the circumstance exists.  
Further, Affiant sayeth naught.

\_\_\_\_\_  
(Affiant)

**STATE OF** \_\_\_\_\_

**COUNTY OF** \_\_\_\_\_

The foregoing instrument was subscribed, sworn to and acknowledged before me by

\_\_\_\_\_ on this the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

My Commission expires: \_\_\_\_\_

\_\_\_\_\_  
NOTARY PUBLIC, STATE AT LARGE

**4. BID SCHEDULE – SCHEDULE OF VALUES**

The Bidder agrees to perform all the Work described in the Specifications and shown on the Plans for the following proposed lump sum and/or unit prices, if applicable, which shall include the furnishing of all labor, materials, supplies, equipment and/or vehicle usage, services, all items of cost, overhead, taxes (federal, state, local), and profit for the Contractor and any Subcontractor involved, within the time set forth herein. If unit prices are applicable, Bidder must make the extensions and additions showing the total amount of bid.

Form of proposal must include unit bid prices written in words, unit price written in numbers and total amount bid (unit price x quantity) per line item OR bid may be considered non-responsive. In case of price discrepancy, unit bid price written in words will prevail followed by unit price written in numbers then total amount bid per line item.

If a discrepancy between the unit price and the item total exists, the unit price prevails except:

If the unit price is illegible, omitted, or the same as the item total, item total prevails and the unit price is the quotient of the item total and the quantity.

If the unit price and the item total are illegible or are omitted, the bid may be determined nonresponsive. If a lump sum total price is illegible or is omitted, the bid may be determined nonresponsive.

For a lump sum based bid, the item total is the bid amount the Division uses for bid comparison.

For a unit price based bid, the sum of the item totals is the bid amount the Division uses for bid comparison.

The LFUCG's decision on the bid amount is final.

Item No.	Description w/Unit Bid Price Written in Words	Unit	Total Bid Amount
1.	Installation of electric as per specs _____ Dollars _____ Cents	LS	\$ _____

Submitted by:

\_\_\_\_\_ *Firm*

\_\_\_\_\_ *Address*

\_\_\_\_\_ *City, State & Zip*

***Bid must be signed:  
(original signature)***

\_\_\_\_\_ ***Signature of Authorized Company Representative – Title***

\_\_\_\_\_ *Representative/s Name (Typed or Printed)*

\_\_\_\_\_ *Area Code – Phone – Extension* *Fax #*

\_\_\_\_\_ *E-Mail Address*

OFFICIAL ADDRESS:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ (Seal if Bid is by Corporation)

***By signing this form you agree to ALL terms, conditions, and associated forms in this bid package***



**5. STATEMENT OF BIDDER'S QUALIFICATIONS**

The following statement of the Bidder's qualifications is required to be filled in, executed, and submitted with the Proposal:

- 1. Name of Bidder: \_\_\_\_\_
- 2. Permanent Place of Business: \_\_\_\_\_
- 3. When Organized: \_\_\_\_\_
- 4. Where Incorporated: \_\_\_\_\_
- 5. Construction Plant and Equipment Available for this Project:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(Attach Separate Sheet If Necessary)

**6. Financial Condition:**

If specifically requested by the OWNER, the apparent low Bidder is required to submit its latest three (3) years audited financial statements to the OWNER'S Division of Central Purchasing within seven (7) calendar days following the bid opening.

**7. In the event the Contract is awarded to the undersigned, surety bonds will be furnished by:**

\_\_\_\_\_ (Surety)

Signed: \_\_\_\_\_ (Representative of Surety)

**8. The following is a list of similar projects performed by the Bidder: (Attach separate sheet if necessary).**

<u>NAME</u>	<u>LOCATION</u>	<u>CONTRACT SUM</u>

9. The Bidder has now under contract and bonded the following projects:

<u>NAME</u>	<u>LOCATION</u>	<u>CONTRACT SUM</u>

10. List Key Bidder Personnel who will work on this Project.

<u>NAME</u>	<u>POSITION DESCRIPTION</u>	<u>NO. OF YEARS WITH BIDDER</u>

11. DBE Participation on current bonded projects under contract:

<u>SUBCONTRACTORS</u> <u>(LIST)</u>	<u>PROJECT</u> <u>(SPECIFIC TYPE)</u>	<u>DBE</u>	<u>% of WORK</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

(USE ADDITIONAL SHEETS IF NECESSARY)

12. We acknowledge that, if we are the apparent low Bidder, we may be required to submit to the OWNER within 7 calendar days following the Bid Opening, a sworn statement regarding all current work on hand and under contract, and a statement on the OWNER'S form of the experience of our officers, office management and field management personnel. Additionally, if requested by the OWNER, we will within 7 days following the request submit audited financial statements and loss history for insurance claims for the 3 most recent years (or a lesser period stipulated by the OWNER).

**6. LIST OF PROPOSED SUBCONTRACTORS**

The following list of proposed subcontractors is required by the OWNER to be executed, completed and submitted with the BIDDER'S FORM OF PROPOSAL. All subcontractors are subject to approval of the Lexington-Fayette Urban County Government. Failure to submit this list completely filled out may be cause for rejection of bid.

<u>BRANCH OF WORK - LIST EACH MAJOR ITEM</u> Such as: Grading, bituminous paving, concrete, seeding and protection, construction staking, etc.	<u>SUBCONTRACTOR</u>	<u>DBE</u> <u>Yes/No</u>	<u>% of Work</u>
1. _____	Name: _____ Address: _____	_____	_____
2. _____	Name: _____ Address: _____	_____	_____
3. _____	Name: _____ Address: _____	_____	_____
4. _____	Name: _____ Address: _____	_____	_____

**LIST OF PROPOSED MATERIALS/MANUFACTURER**

	<u>MANUFACTURER'S REPRESENTATIVE FIRM</u>		
1. _____	Name: _____ Address: _____	_____	_____

(Attach additional sheet(s) if necessary.)

**7. Lexington-Fayette Urban County Government  
MWDBE PARTICIPATION GOALS**

**A. GENERAL**

- 1) The LFUCG request all potential contractors to make a concerted effort to include Minority-Owned (MBE), Woman-Owned (WBE), Disadvantaged (DBE) Business Enterprises and Veteran-Owned Small Businesses (VOSB) as subcontractors or suppliers in their bids.
- 2) Toward that end, the LFUCG has established 10% of total procurement costs as a Goal for participation of Minority-Owned, Woman-Owned and Disadvantaged Businesses on this contract.
- 3) **It is therefore a request of each Bidder to include in its bid, the same goal (10%) for MWDBE participation and other requirements as outlined in this section.**
- 4) The LFUCG has also established a 3% of total procurement costs as a Goal for participation for of Veteran-Owned Businesses.
- 5) **It is therefore a request of each Bidder to include in its bid, the same goal (3%) for Veteran-Owned participation and other requirements as outlined in this section.**

**B. PROCEDURES**

- 1) The successful bidder will be required to report to the LFUCG, the dollar amounts of all payments submitted to Minority-Owned, Woman-Owned or Veteran-Owned subcontractors and suppliers for work done or materials purchased for this contract. (See Subcontractor Monthly Payment Report)
- 2) Replacement of a Minority-Owned, Woman-Owned or Veteran-Owned subcontractor or supplier listed in the original submittal must be requested in writing and must be accompanied by documentation of Good Faith Efforts to replace the subcontractor / supplier with another MWDBE Firm; this is subject to approval by the LFUCG. (See LFUCG MWDBE Substitution Form)
- 3) For assistance in identifying qualified, certified businesses to solicit for potential contracting opportunities, bidders may contact:
  - a) The Lexington-Fayette Urban County Government, Division of Central Purchasing (859-258-3320)
- 4) The LFUCG will make every effort to notify interested MWDBE and Veteran-Owned subcontractors and suppliers of each Bid Package, including information on the scope of work, the pre-bid meeting time and location, the bid date, and all other pertinent information regarding the project.

**C. DEFINITIONS**

- 1) A Minority-Owned Business Enterprise (MBE) is defined as a business which is certified as being at least 51% owned, managed and controlled by persons of African American, Hispanic, Asian, Pacific Islander, American Indian or Alaskan Native Heritage.
- 2) A Woman-Owned Business Enterprise (WBE) is defined as a business which is certified as being at least 51% owned, managed and controlled by one or more women.

- 3) A Disadvantaged Business (DBE) is defined as a business which is certified as being at least 51% owned, managed and controlled by a person(s) that are economically and socially disadvantaged.
- 4) A Veteran-Owned Small Business (VOSB) is defined as a business which is certified as being at least 51% owned, managed and controlled by a veteran and/or a service disabled veteran.
- 5) Good Faith Efforts are efforts that, given all relevant circumstances, a bidder or proposer actively and aggressively seeking to meet the goals, can reasonably be expected to make. In evaluating good faith efforts made toward achieving the goals, whether the bidder or proposer has performed the efforts outlined in the Obligations of Bidder for Good Faith Efforts outlined in this document will be considered, along with any other relevant factors.

#### D. OBLIGATION OF BIDDER FOR GOOD FAITH EFFORTS

- 1) **The bidder shall make a Good Faith Effort to achieve the Participation Goal for MWDBE and Veteran-Owned subcontractors/suppliers. The failure to meet the goal shall not necessarily be cause for disqualification of the bidder; however, bidders not meeting the goal are required to furnish with their bids written documentation of their Good Faith Efforts to do so.**
- 2) Award of Contract shall be conditioned upon satisfaction of the requirements set forth herein.
- 3) The Form of Proposal includes a section entitled "MWDBE Participation Form". The applicable information must be completed and submitted as outlined below.
- 4) **Failure to submit this information as requested may be cause for rejection of bid or delay in contract award.**

#### E. DOCUMENTATION REQUIRED FOR GOOD FAITH EFFORTS

- 1) Bidders reaching the Goal are required to submit only the MWDBE Participation Form." The form must be fully completed including names and telephone number of participating MWDBE firm(s); type of work to be performed; estimated value of the contract and value expressed as a percentage of the total Lump Sum Bid Price. The form must be signed and dated, and is to be submitted with the bid.
- 2) Bidders not reaching the Goal must submit the "MWDBE Participation Form", the "Quote Summary Form" and a written statement documenting their Good Faith Effort to do so. If bid includes no MWDBE and/or Veteran participation, bidder shall enter "None" on the subcontractor / supplier form). In addition, the bidder must submit written proof of their Good Faith Efforts to meet the Participation Goal:
  - a. Advertised opportunities to participate in the contract in at least two (2) publications of general circulation media; trade and professional association publications; small and minority business or trade publications; and publications or trades targeting minority, women and disadvantaged businesses not less than fifteen (15) days prior to the deadline for submission of bids to allow MWDBE firms and Veteran-Owned businesses to participate.
  - b. Included documentation of advertising in the above publications with the bidders good faith efforts package

- c. Attended LFUCG Central Purchasing Economic Inclusion Outreach event
- d. Attended pre-bid meetings that were scheduled by LFUCG to inform MWDBEs and/or Veteran-Owned businesses of subcontracting opportunities
- e. Sponsored Economic Inclusion event to provide networking opportunities for prime contractors and MWDBE firms and Veteran-Owned businesses.
- f. Requested a list of MWDBE and/or Veteran subcontractors or suppliers from LFUCG and showed evidence of contacting the companies on the list(s).
- g. Contacted organizations that work with MWDBE companies for assistance in finding certified MWDBE firms and Veteran-Owned businesses to work on this project. Those contacted and their responses should be a part of the bidder's good faith efforts documentation.
- h. Sent written notices, by certified mail, email or facsimile, to qualified, certified MWDBEs and/or Veteran-Owned businesses soliciting their participation in the contract not less than seven (7) days prior to the deadline for submission of bids to allow them to participate effectively.
- i. Followed up initial solicitations by contacting MWDBEs and Veteran-Owned Businesses to determine their level of interest.
- j. Provided the interested MWDBE firm and/or Veteran-Owned business with adequate and timely information about the plans, specifications, and requirements of the contract.
- k. Selected portions of the work to be performed by MWDBE firms and/or Veteran-Owned businesses in order to increase the likelihood of meeting the contract goals. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate MWDBE and Veteran participation, even when the prime contractor may otherwise perform these work items with its own workforce
- l. Negotiated in good faith with interested MWDBE firms and Veteran-Owned businesses not rejecting them as unqualified without sound reasons based on a thorough investigation of their capabilities. Any rejection should be so noted in writing with a description as to why an agreement could not be reached.
- m. Included documentation of quotations received from interested MWDBE firms and Veteran-Owned businesses which were not used due to uncompetitive pricing or were rejected as unacceptable and/or copies of responses from firms indicating that they would not be submitting a bid.
- n. Bidder has to submit sound reasons why the quotations were considered unacceptable. The fact that the bidder has the ability and/or desire to perform the contract work with its own forces will not be considered a sound reason for rejecting a MWDBE and/or Veteran-Owned business's quote. Nothing in this provision shall be construed to require the bidder to accept unreasonable quotes in order to satisfy MWDBE and Veteran goals.

o. Made an effort to offer assistance to or refer interested MWDBE firms and Veteran-Owned businesses to obtain the necessary equipment, supplies, materials, insurance and/or bonding to satisfy the work requirements of the bid proposal

p. Made efforts to expand the search for MWBE firms and Veteran-Owned businesses beyond the usual geographic boundaries.

q. Other--any other evidence that the bidder submits which may show that the bidder has made reasonable good faith efforts to include MWDBE and Veteran participation.

**Note: Failure to submit any of the documentation requested in this section may be cause for rejection of bid. Bidders may include any other documentation deemed relevant to this requirement which is subject to review by the MBE Liaison. Documentation of Good Faith Efforts must be submitted with the Bid, if the participation Goal is not met.**





## MINORITY BUSINESS ENTERPRISE PROGRAM

Sherita Miller, MPA  
Minority Business Enterprise Liaison  
Division of Central Purchasing  
Lexington-Fayette Urban County Government  
200 East Main Street  
Lexington, KY 40507  
[smiller@lexingtonky.gov](mailto:smiller@lexingtonky.gov)  
859-258-3323

**OUR MISSION:** The mission of the Minority Business Enterprise Program is to facilitate the full participation of minority and women owned businesses in the procurement process and to promote economic inclusion as a business imperative essential to the long term economic viability of Lexington-Fayette Urban County Government.

To that end the city council adopted and implemented Resolution 484-2017 – A Certified Minority, Women and Disadvantaged Business Enterprise ten percent (10%) minimum goal and a three (3%) minimum goal for Certified Veteran-Owned Small Businesses and Certified Service Disabled Veteran – Owned Businesses for government contracts.

The resolution states the following definitions shall be used for the purposes of reaching these goals (a full copy is available in Central Purchasing):

***Certified Disadvantaged Business Enterprise (DBE)*** – a business in which at least fifty-one percent (51%) is owned, managed and controlled by a person(s) who is socially and economically disadvantaged as defined by 49 CFR subpart 26.

***Certified Minority Business Enterprise (MBE)*** – a business in which at least fifty-one percent (51%) is owned, managed and controlled by an ethnic minority (i.e. African American, Asian American/Pacific Islander, Hispanic Islander, Native American/Native Alaskan Indian) as defined in federal law or regulation as it may be amended from time-to-time.

***Certified Women Business Enterprise (WBE)*** – a business in which at least fifty-one percent (51%) is owned, managed and controlled by a woman.

***Certified Veteran-Owned Small Business (VOSB)*** – a business in which at least fifty-one percent (51%) is owned, managed and controlled by a veteran who served on active duty with the U.S. Army, Air Force, Navy, Marines or Coast Guard.

***Certified Service Disabled Veteran Owned Small Business (SDVOSB)*** – a business in which at least fifty-one percent (51%) is owned, managed and controlled by a disabled veteran who served on active duty with the U.S. Army, Air Force, Navy, Marines or Coast Guard.

The term “Certified” shall mean the business is appropriately certified, licensed, verified, or validated by an organization or entity recognized by the Division of Purchasing as having the appropriate credentials to make a determination as to the status of the business.

To comply with Resolution 484-2017, prime contractors and minority, women and veteran owned businesses must enroll in the new Diverse Business Management Compliance system, <https://lexingtonky.diversitycompliance.com/>

We have compiled the list below to help you locate certified MBE, WBE and DBE certified businesses. Below is a listing of contacts for LFUCG Certified MWDBEs and Veteran-Owned Small Businesses in (<https://lexingtonky.ionwave.net>)

<b>Business</b>	<b>Contact</b>	<b>Email Address</b>	<b>Phone</b>
<b>LFUCG</b>	Sherita Miller	<a href="mailto:smiller@lexingtonky.gov">smiller@lexingtonky.gov</a>	859-258-3323
<b>Commerce Lexington – Minority Business Development</b>	Tyrone Tyra	<a href="mailto:ttyra@commercelexington.com">ttyra@commercelexington.com</a>	859-226-1625
<b>Tri-State Minority Supplier Diversity Council</b>	Susan Marston	<a href="mailto:smarston@tsmsdc.com">smarston@tsmsdc.com</a>	502-365-9762
<b>Small Business Development Council</b>	Shawn Rogers UK SBDC	<a href="mailto:shawn.rogers@uky.edu">shawn.rogers@uky.edu</a>	859-257-7666
<b>Community Ventures Corporation</b>	Phyllis Alcorn	<a href="mailto:palcorn@cvky.org">palcorn@cvky.org</a>	859-231-0054
<b>KY Transportation Cabinet (KYTC)</b>	Melvin Bynes	<a href="mailto:Melvin.bynes2@ky.gov">Melvin.bynes2@ky.gov</a>	502-564-3601
<b>KYTC Pre-Qualification</b>	Shella Eagle	<a href="mailto:Shella.Eagle@ky.gov">Shella.Eagle@ky.gov</a>	502-782-4815
<b>Ohio River Valley Women’s Business Council (WBENC)</b>	Sheila Mixon	<a href="mailto:smixon@orvwbc.org">smixon@orvwbc.org</a>	513-487-6537
<b>Kentucky MWBE Certification Program</b>	Yvette Smith, Kentucky Finance Cabinet	<a href="mailto:Yvette.Smith@ky.gov">Yvette.Smith@ky.gov</a>	502-564-8099
<b>National Women Business Owner’s Council (NWBOC)</b>	Janet Harris-Lange	<a href="mailto:janet@nwbo.org">janet@nwbo.org</a>	800-675-5066
<b>Small Business Administration</b>	Robert Coffey	<a href="mailto:robertcoffey@sba.gov">robertcoffey@sba.gov</a>	502-582-5971
<b>LaVoz de Kentucky</b>	Andres Cruz	<a href="mailto:lavozdeky@yahoo.com">lavozdeky@yahoo.com</a>	859-621-2106
<b>The Key News Journal</b>	Patrice Muhammad	<a href="mailto:production@keynewsjournal.com">production@keynewsjournal.com</a>	859-685-8488



**LFUCG MWDBE PARTICIPATION FORM**

**Bid/RFP/Quote Reference #** \_\_\_\_\_

The MWDBE and/or veteran subcontractors listed have agreed to participate on this Bid/RFP/Quote. If any substitution is made or the total value of the work is changed prior to or after the job is in progress, it is understood that those substitutions must be submitted to Central Purchasing for approval immediately. **Failure to submit a completed form may cause rejection of the bid.**

MWDBE Company, Name, Address, Phone, Email	MBE WBE or DBE	Work to be Performed	Total Dollar Value of the Work	% Value of Total Contract
1.				
2.				
3.				
4.				

The undersigned company representative submits the above list of MWDBE firms to be used in accomplishing the work contained in this Bid/RFP/Quote. Any misrepresentation may result in the termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and false claims.

\_\_\_\_\_  
**Company**

\_\_\_\_\_  
**Company Representative**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Title**



**LFUCG MWDBE SUBSTITUTION FORM**

**Bid/RFP/Quote Reference # \_\_\_\_\_**

The substituted MWDBE and/or veteran subcontractors listed below have agreed to participate on this Bid/RFP/Quote. These substitutions were made prior to or after the job was in progress. These substitutions were made for reasons stated below and are now being submitted to Central Purchasing for approval. By the authorized signature of a representative of our company, we understand that this information will be entered into our file for this project.

SUBSTITUTED MWDBE Company Name, Address, Phone, Email	MWDBE Formally Contracted/ Name, Address, Phone, Email	Work to Be Performed	Reason for the Substitution	Total Dollar Value of the Work	% Value of Total Contract
1.					
2.					
3.					
4.					

The undersigned acknowledges that any misrepresentation may result in termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and false claims.

\_\_\_\_\_  
Company

\_\_\_\_\_  
Company Representative

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title



**MWDBE QUOTE SUMMARY FORM**

Bid/RFP/Quote Reference # \_\_\_\_\_

The undersigned acknowledges that the minority and/or veteran subcontractors listed on this form did submit a quote to participate on this project. Failure to submit this form may cause rejection of the bid.

<b>Company Name</b>	<b>Contact Person</b>
<b>Address/Phone/Email</b>	<b>Bid Package / Bid Date</b>

MWDBE Company Address	Contact Person	Contact Information (work phone, Email, cell)	Date Contacted	Services to be performed	Method of Communication (email, phone meeting, ad, event etc)	Total dollars \$\$ Do Not Leave Blank (Attach Documentation)	MBE * AA HA AS NA Female	Veteran

(MBE designation / AA=African American / HA= Hispanic American/AS = Asian American/Pacific Islander/ NA= Native American)

The undersigned acknowledges that all information is accurate. Any misrepresentation may result in termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and claims.

\_\_\_\_\_  
**Company**

\_\_\_\_\_  
**Company Representative**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Title**



## LFUCG SUBCONTRACTOR MONTHLY PAYMENT REPORT

The LFUCG has a 10% goal plan adopted by city council to increase the participation of minority and women owned businesses in the procurement process. The LFUCG also has a 3% goal plan adopted by cited council to increase the participation of veteran owned businesses in the procurement process. In order to measure that goal LFUCG will track spending with MWDBE and Veteran contractors on a monthly basis. By the signature below of an authorized company representative, you certify that the information is correct, and that each of the representations set forth below is true. Any misrepresentation may result in termination of the contract and/or prosecution under applicable Federal and State laws concerning false statements and false claims. Please submit this form monthly to the Division of Central Purchasing/ 200 East Main Street / Room 338 / Lexington, KY 40507.

**Bid/RFP/Quote #** \_\_\_\_\_

**Total Contract Amount Awarded to Prime Contractor for this Project** \_\_\_\_\_

<b>Project Name/ Contract #</b>	<b>Work Period/ From:</b> _____ <b>To:</b> _____
<b>Company Name:</b>	<b>Address:</b>
<b>Federal Tax ID:</b>	<b>Contact Person:</b>

Subcontractor Vendor ID (name, address, phone, email)	Description of Work	Total Subcontract Amount	% of Total Contract Awarded to Prime for this Project	Total Amount Paid for this Period	Purchase Order number for subcontractor work (please attach PO)	Scheduled Project Start Date	Scheduled Project End Date

By the signature below of an authorized company representative, you certify that the information is correct, and that each of the representations set forth below is true. Any misrepresentations may result in the termination of the contract and/or prosecution under applicable Federal and State laws concerning false statements and false claims.

\_\_\_\_\_  
**Company**

\_\_\_\_\_  
**Company Representative**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Title**

**LFUCG STATEMENT OF GOOD FAITH EFFORTS**

**Bid/RFP/Quote #** \_\_\_\_\_

By the signature below of an authorized company representative, we certify that we have utilized the following Good Faith Efforts to obtain the maximum participation by MWDBE and Veteran-Owned business enterprises on the project and can supply the appropriate documentation.

\_\_\_\_\_ Advertised opportunities to participate in the contract in at least two (2) publications of general circulation media; trade and professional association publications; small and minority business or trade publications; and publications or trades targeting minority, women and disadvantaged businesses not less than fifteen (15) days prior to the deadline for submission of bids to allow MWDBE firms and Veteran-Owned businesses to participate.

\_\_\_\_\_ Included documentation of advertising in the above publications with the bidders good faith efforts package

\_\_\_\_\_ Attended LFUCG Central Purchasing Economic Inclusion Outreach event

\_\_\_\_\_ Attended pre-bid meetings that were scheduled by LFUCG to inform MWDBEs and/or Veteran-Owned Businesses of subcontracting opportunities

\_\_\_\_\_ Sponsored Economic Inclusion event to provide networking opportunities for prime contractors and MWDBE firms and Veteran-Owned businesses

\_\_\_\_\_ Requested a list of MWDBE and/or Veteran subcontractors or suppliers from LFUCG and showed evidence of contacting the companies on the list(s).

\_\_\_\_\_ Contacted organizations that work with MWDBE companies for assistance in finding certified MWDBE firms and Veteran-Owned businesses to work on this project. Those contacted and their responses should be a part of the bidder's good faith efforts documentation.

\_\_\_\_\_ Sent written notices, by certified mail, email or facsimile, to qualified, certified MWDBEs soliciting their participation in the contract not less than seven (7) days prior to the deadline for submission of bids to allow them to participate effectively.

\_\_\_\_\_ Followed up initial solicitations by contacting MWDBEs and Veteran-Owned businesses to determine their level of interest.

\_\_\_\_\_ Provided the interested MWDBE firm and/or Veteran-Owned business with adequate and timely information about the plans, specifications, and requirements of the contract.

\_\_\_\_\_ Selected portions of the work to be performed by MWDBE firms and/or Veteran-Owned businesses in order to increase the likelihood of meeting the contract goals. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate MWDBE and Veteran participation, even when the prime contractor may otherwise perform these work

items with its own workforce

\_\_\_\_\_ Negotiated in good faith with interested MWDBE firms and Veteran-Owned businesses not rejecting them as unqualified without sound reasons based on a thorough investigation of their capabilities. Any rejection should be so noted in writing with a description as to why an agreement could not be reached.

\_\_\_\_\_ Included documentation of quotations received from interested MWDBE firms and Veteran-Owned businesses which were not used due to uncompetitive pricing or were rejected as unacceptable and/or copies of responses from firms indicating that they would not be submitting a bid.

\_\_\_\_\_ Bidder has to submit sound reasons why the quotations were considered unacceptable. The fact that the bidder has the ability and/or desire to perform the contract work with its own forces will not be considered a sound reason for rejecting a MWDBE and/or Veteran-Owned business's quote. Nothing in this provision shall be construed to require the bidder to accept unreasonable quotes in order to satisfy MWDBE and Veteran goals.

\_\_\_\_\_ Made an effort to offer assistance to or refer interested MWDBE firms and Veteran-Owned businesses to obtain the necessary equipment, supplies, materials, insurance and/or bonding to satisfy the work requirements of the bid proposal

\_\_\_\_\_ Made efforts to expand the search for MWBE firms and Veteran-Owned businesses beyond the usual geographic boundaries.

\_\_\_\_\_ Other--any other evidence that the bidder submits which may show that the bidder has made reasonable good faith efforts to include MWDBE and Veteran participation.

**NOTE: Failure to submit any of the documentation requested in this section may be cause for rejection of bid. Bidders may include any other documentation deemed relevant to this requirement which is subject to approval by the MBE Liaison. Documentation of Good Faith Efforts must be submitted with the Bid, if the participation Goal is not met.**

The undersigned acknowledges that all information is accurate. Any misrepresentations may result in termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and claims.

\_\_\_\_\_  
Company

\_\_\_\_\_  
Company Representative

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title



**8. AUTHENTICATION OF BID AND STATEMENT OF NON-COLLUSION, NON-CONFLICT OF INTEREST**

I hereby swear (or affirm) under the penalty for false swearing:

1. That I am the Bidder (if the Bidder is an individual), a partner of the Bidder (if the Bidder is a partnership), or an officer or employee of the bidding corporation having authority to sign on its behalf (if the Bidder is a corporation);
2. That the attached bid has been arrived at by the Bidder independently, and has been submitted without collusion with, and without any agreement, understanding or planned common course of action, with any other contractor, vendor of materials, supplies, equipment or services described in the Invitation to Bid, designed to limit independent bidding or competition;
3. That the contents of the bid or bids have not been communicated by the Bidder or its employees or agents to any person not an employee or agent of the Bidder or its surety on any bond furnished, with the bid or bids, and will not be communicated to any such person, prior to the official opening of the bid or bids;
4. That the Bidder is legally entitled to enter into the contracts with the Lexington-Fayette Urban County Government, and is not in violation of any prohibited conflict of interest;
5. (Applicable to corporation only) That as a foreign corporation, we are registered with the Secretary of State, Commonwealth of Kentucky, and authorized to do business in the State \_\_\_\_\_ or, that as a domestic corporation, we are in good standing with the Secretary of State, Commonwealth of Kentucky \_\_\_\_\_. Check the statement applicable.
6. This offer is for 60 calendar days from the date this bid is opened. In submitting the above, it is expressly agreed that, upon proper acceptance by the Lexington-Fayette Urban County Government of any or all items bid above, a contract shall thereby be created with respect to the items accepted.
7. That I have fully informed myself regarding the accuracy of the statements made in this statement.
8. That I certify that Subcontractors have not and will not be awarded to any firm(s) that have been debarred from noncompliance with the Federal Labor Standards, Title VI of the Civil Rights Act of 1964 As Amended, Executive Order 11246 As Amended or any other Federal Law.

**9. STATEMENT OF EXPERIENCE**

NAME OF INDIVIDUAL: \_\_\_\_\_

POSITION/TITLE: \_\_\_\_\_

STATEMENT OF EXPERIENCE: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

NAME OF INDIVIDUAL: \_\_\_\_\_

POSITION/TITLE: \_\_\_\_\_

STATEMENT OF EXPERIENCE: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

NAME OF INDIVIDUAL: \_\_\_\_\_

POSITION/TITLE: \_\_\_\_\_

STATEMENT OF EXPERIENCE: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

NAME OF INDIVIDUAL: \_\_\_\_\_

POSITION/TITLE: \_\_\_\_\_

STATEMENT OF EXPERIENCE: \_\_\_\_\_

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NAME OF INDIVIDUAL: \_\_\_\_\_

POSITION/TITLE: \_\_\_\_\_

STATEMENT OF EXPERIENCE: \_\_\_\_\_

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NAME OF INDIVIDUAL: \_\_\_\_\_

POSITION/TITLE: \_\_\_\_\_

STATEMENT OF EXPERIENCE: \_\_\_\_\_

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**\* Include all officers, office management's, Affirmative Action officials, and field management personnel. (Attach separate sheets if necessary.)**

## 10. EQUAL OPPORTUNITY AGREEMENT

### Standard Title VI Assurance

The Lexington Fayette-Urban County Government, (hereinafter referred to as the "Recipient") hereby agrees that as a condition to receiving any Federal financial assistance from the U.S. Department of Transportation, it will comply with Title VI of the Civil Rights Act of 1964, 78Stat.252, 42 U.S.C. 2000d-4 (hereinafter referred to as the "Act"), and all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, (49 CFR, Part 21) Nondiscrimination in Federally Assisted Program of the Department of Transportation – Effectuation of Title VI of the Civil Rights Act of 1964 (hereinafter referred to as the "Regulations") and other pertinent directives, no person in the United States shall, on the grounds of race, color, national origin, sex, age (over 40), religion, sexual orientation, gender identity, veteran status, or disability be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Recipient receives Federal financial assistance from the U.S. Department of Transportation, including the Federal Highway Administration, and hereby gives assurance that will promptly take any necessary measures to effectuate this agreement. This assurance is required by subsection 21.7(a) (1) of the Regulations.

### The Law

- \* Title VII of the Civil Rights Act of 1964 (amended 1972) states that it is unlawful for an employer to discriminate in employment because of race, color, religion, sex, age (40-70 years) or national origin.
- \* Executive Order No. 11246 on Nondiscrimination under Federal contract prohibits employment discrimination by contractor and subcontractor doing business with the Federal Government or recipients of Federal funds. This order was later amended by Executive Order No. 11375 to prohibit discrimination on the basis of sex.
- \* Section 503 of the Rehabilitation Act of 1973 States:  
*The Contractor will not discriminate against any employee or applicant for employment because of physical or mental handicap.*
- \* Section 2012 of the Vietnam Era Veterans Readjustment Act of 1973 requires Affirmative Action on behalf of disabled veterans and veterans of the Vietnam Era by contractors having Federal Contracts.
- \* Section 206 (A) of Executive Order 12086, Consolidation of Contract Compliance Functions for Equal Employment Opportunity, states:  
*The Secretary of Labor may investigate the employment practices of any Government contractor or sub-contractor to determine whether or not the contractual provisions specified in Section 202 of this order have been violated.*

The Lexington-Fayette Urban County Government practices Equal Opportunity in recruiting, hiring and promoting. It is the Government's intent to affirmatively provide employment opportunities for those individuals who have previously not been allowed to enter into the mainstream of society. Because of its importance to the local Government, this policy carries the full endorsement of the Mayor, Commissioners, Directors, and all supervisory personnel. In following this commitment to Equal Employment Opportunity and because the Government is

the benefactor of the Federal funds, it is both against the Urban County Government policy and illegal for the Government to let contracts to companies which knowingly or unknowingly practice discrimination in their employment practices. Violation of the above mentioned ordinances may cause a contract to be canceled and the contractor may be declared ineligible for future consideration.

Please sign this statement in the appropriate space acknowledging that you have read and understand the provisions contained herein. Return this document as part of your application packet.

Bidders

I/We agree to comply with the Civil Rights Laws listed above that govern employment rights of minorities, women, Vietnam veterans, handicapped, and aged persons.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name of Business

The Entity (regardless of whether construction contractor, non-construction contractor or supplier) agrees to provide equal opportunity in employment for all qualified persons, to prohibit discrimination in employment because of race, color, religion, sex (including pregnancy, sexual orientation or gender identity), national origin, disability, age, genetic information, political affiliation, or veteran status, and to promote equal employment through a positive, continuing program from itself and each of its sub-contracting agents. This program of equal employment opportunity shall apply to every aspect of its employment policies and practices.

The Kentucky equal Employment Opportunity Act of 1978 (KRS 45.560-45.640) requires that any count, city, town, school district, water district, hospital district, or other political subdivision of the state shall include in directly or indirectly publicly funded contracts for supplies, materials, services, or equipment hereinafter entered into the following provisions:

During the performance of this contract, the contractor agrees as follows:

- (1) *The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, age or national origin;*
- (2) *The contractor will state in all solicitations or advertisements for employees placed by or on behalf of the contractors that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age or national origin;*
- (3) *The contract will post notices in conspicuous places, available to employees and applicants for employment, setting forth the provisions of the non-discrimination clauses required by this section; and*
- (4) *The contractor will send a notice to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding advising the labor union or workers' representative of the contractor's commitments under the nondiscrimination clauses.*

The Act further provides:

KRS 45.610. Hiring minorities – Information required

- (1) *For the length of the contract, each contractor shall hire minorities from other sources within the drawing area, should the union with which he has collective bargaining agreements be unwilling to supply sufficient minorities to satisfy the agreed upon goals and timetable.*
- (2) *Each contractor shall, for the length of the contract, furnish such information as required by KRS 45.560 to KRS 45.640 and by such rules, regulations and orders issued pursuant thereto and will permit access to all books and records pertaining to his employment practices and work sites by the contracting agency and the department for purposes of investigation to ascertain compliance with KRS 45.560 to 45.640 and such rules, regulations and orders issued pursuant thereto.*

KRS 45.620. Action against contractor – Hiring of minority contractor or subcontractor

- (1) *If any contractor is found by the department to have engaged in an unlawful practice under this chapter during the course of performing under a contract or subcontract covered under KRS 45.560 to 45.640, the department shall so certify to the contracting agency and such certification shall be binding upon the contracting agency unless it is reversed in the course of judicial review.*
- (2) *If the contractor is found to have committed an unlawful practice under KRS 45.560 to 45.640, the contracting agency may cancel or terminate the contract, conditioned upon a program for future compliance approved by the contracting agency and the department. The contracting agency may declare such a contractor ineligible to bid on further contracts with that agency until such time as the contractor complies in full with the requirements of KRS 45.560 – 45.640.*
- (3) *The equal employment provisions of KRS 45.560 to 45.640 may be met in part by a contractor by subcontracting to a minority contractor or subcontractor. For the provisions of KRS 45.560 to 45.640, a minority contractor or subcontractor shall mean a business that is owned and controlled by one or more persons disadvantaged by racial or ethnic circumstances.*

KRS 45.630 Termination of existing employee not required, when

*Any provision of KRS 45.560 to 45.640 notwithstanding, no contractor shall be required to terminate an existing employee upon proof that that employee was employed prior to the date of the contract.*

KRS 45.640 Minimum skills

*Nothing in KRS 45.560 to 45.640 shall require a contractor to hire anyone who fails to demonstrate the minimum skills required to perform a particular job.*

It is recommended that all of the provisions quoted above to be included as special conditions in each contract. In the case of a contract exceeding \$250,000, the contractor is required to furnish evidence that his work-force in Kentucky is representative of the available work-force in the area from which he draws employees, or to supply an Affirmative Action plan which will achieve such representation during the life of the contract.

11. **EQUAL EMPLOYMENT OPPORTUNITY AFFIRMATIVE ACTION POLICY**

It is the policy of \_\_\_\_\_  
to assure that all applicants for employment and all employees are treated on a fair and equitable basis without regard to their race, religion, sex, color, handicap, natural origin or age.

Such action shall include employment, promotion, demotion, recruitment or recruitment advertising, layoff or termination, rates of pay and other forms of compensation, and selection for training, whether apprenticeship and/or on-the-job-training.

Furthermore, this company agrees to make special recruitment efforts to hire the protected class whenever feasible. This company also agrees to adhere to all applicable federal, state, and local laws relating to Equal Employment Opportunity for all individuals.



**12. WORKFORCE ANALYSIS FORM**

Name of Organization: \_\_\_\_\_

Categories	Total	White (Not Hispanic or Latino)		Hispanic or Latino		Black or African-American (Not Hispanic or Latino)		Native Hawaiian and Other Pacific Islander (Not Hispanic or Latino)		Asian (Not Hispanic or Latino)		American Indian or Alaskan Native (not Hispanic or Latino)		Two or more races (Not Hispanic or Latino)		Total	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Administrators																	
Professionals																	
Superintendents																	
Supervisors																	
Foremen																	
Technicians																	
Protective Service																	
Para-Professionals																	
Office/Clerical																	
Skilled Craft																	
Service/Maintenance																	
<b>Total:</b>																	

Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Revised 2015-Dec-15

Prepared by: \_\_\_\_\_  
(Name and Title)

**13. EVIDENCE OF INSURABILITY**

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT CONSTRUCTION PROJECT  
(Use separate form for each Agency or Brokerage agreeing to provide coverage)

Names Insured: \_\_\_\_\_ Employee ID: \_\_\_\_\_

Address: \_\_\_\_\_ Phone: \_\_\_\_\_

Project to be insured: \_\_\_\_\_

In lieu of obtaining certificates of insurance at this time, the undersigned agrees to provide the above Named Insured with the minimum coverage listed below. These are outlined in the Insurance and Risk Management of Part V (Special Conditions), including all requirements, and conditions:

Section Items	Coverage	Minimum Limits and Policy Requirements	Limits Provided To Insured	Name of Insurer	A.M. Best's Code	Rating
SC-2 – see provisions	CGL	\$1,000,000 per occ. And \$2,000,000 aggregate	\$			
SC-2 – see provisions	AUTO	\$1,000,000/per occ.	\$			
SC-2 – see provisions	WC	Statutory w/endorsement as noted	\$			
SC-2 – see provisions	EXC		\$			

Section 2 includes required provisions, statements regarding insurance requirements, and the undersigned agrees to abide by all provisions for the coverage's checked above unless stated otherwise when submitting.

Agency or Brokerage \_\_\_\_\_ Name of Authorized Representative \_\_\_\_\_

Street Address \_\_\_\_\_ Title \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_ Authorized Signature \_\_\_\_\_

Telephone Number \_\_\_\_\_ Date \_\_\_\_\_

NOTE: Authorized signatures may be the agent's if agent has placed insurance through an agency agreement with the insurer. If insurance is brokered, authorized signature must be that of authorized representative of insurer.

**IMPORTANT: Contract may not be awarded if a completed and signed copy of this form for all coverage's listed above is not provided with the bid.**

**14. DEBARRED FIRMS**

**PROJECT NAME:** \_\_\_\_\_

**BID NUMBER:** \_\_\_\_\_

**LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT  
LEXINGTON, KY**

All prime Contractors shall certify that Subcontractors have not and will not be awarded to any firms that has been debarred for noncompliance with the Federal Labor Standards, Title VI of the Civil Rights Act of 1964 As Amended, Executive Order 11246 As Amended or any other Federal Law.

All bidders shall complete the attached certification in duplicate and submit both copies to the Owner with the bid proposal. The Owner (grantee) shall transmit one copy to the Lexington-Fayette Urban County Government, Division of Community Development, within fourteen (14) days after bid opening.

The undersigned hereby certifies that the firm of \_\_\_\_\_ has not and will not award a subcontract, in connection with any contract award to it as the result of this bid, to any firm that has been debarred for noncompliance with the Federal labor Standards, Title VI of the civil Rights Act of 1964, Executive Order 11246 as amended or any Federal Law.

\_\_\_\_\_  
Name of Firm Submitting Bid

\_\_\_\_\_  
Signature of Authorized Official

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

**15. DEBARMENT CERTIFICATION**

All contractors/subcontractors shall complete the following certification and submit it with the bid proposal.

The contractor/subcontractor certifies in accordance with Executive Order 12549 (Debarment and Suspension 2/18/86) that to the best of its knowledge and belief, that it and its principals:

- 1) Are not presently debarred, suspended, proposed for debarment, declared negligible, or voluntarily excluded from covered transactions or contract by any Federal department or agency for noncompliance with the Federal Labor Standards, Title VI of the Civil Rights Act of 1964 as amended, Executive Order 11246 as amended or any other Federal law;
  - a) Have not within a three year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
  - b) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(a) of this certification; and
  - c) Have not within a three year period preceding this bid has one or more public (Federal, State or local) transactions or contracts terminated for cause or default.
- 2) Where the contractor is unable to certify to any of the statements in this certification, such prospective contractors shall attach an explanation to this certification form.

Firm Name: \_\_\_\_\_

Project: \_\_\_\_\_

Printed Name and Title of Authorized Representative: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

END OF SECTION

**PART IV**  
**GENERAL CONDITIONS**  
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## PART IV

### GENERAL CONDITIONS

#### 1. DEFINITIONS

Wherever used in these General Conditions or the other Contract Documents, the following terms have the meanings indicated which are applicable to both the singular and plural thereof.

##### 1.1 Addenda

Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bid Documents or the Contract Documents.

##### 1.2 Agreement

The written agreement between OWNER and CONTRACTOR covering the Work to be performed; other Contract Documents are attached to the Agreement and made a part thereof as provided therein.

##### 1.3 Application for Payment

The form accepted by CONSULTANT which is to be used by CONTRACTOR in requesting progress or final payments and which is to include such supporting documentation as is required by the Contract Documents.

##### 1.4 Bid

The offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

##### 1.5 Bidder

An individual, partnership, or corporation, who submit a Bid for a prime contract with the OWNER, for the Work described in the proposed Contract Documents.

##### 1.6 Bonds

Bid, performance and payment bonds and other instruments of security.

##### 1.7 Calendar Day

A calendar day of twenty-four hours measured from midnight to the next midnight shall constitute a day.

##### 1.8 Change Order

A document recommended by CONSULTANT, which is signed by CONTRACTOR and OWNER and authorizes an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Time, issued on or after the Effective Date of the Agreement.

**1.9 Contract Documents**

The Advertisement for Bidders, Information for Bidders, Agreement, Addenda (which pertain to the Contract Documents), CONTRACTOR'S Bid (including documentation accompanying the Bid and any post-bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Agreement, the Bonds, these General Conditions, the Special Conditions, the Specifications and the Drawings as the same are more specifically identified in the Agreement, together with all amendments, modifications and supplements.

**1.10 Contract Unit Price**

The monies payable by OWNER to CONTRACTOR under the Contract Documents as stated in the Agreement. Unit Prices are to be firm for the term of this Contract.

**1.11 Contract Time**

The number of consecutive calendar days between the date of issuance of the Notice to Proceed and the contract completion date.

**1.12 CONTRACTOR**

The person, firm or corporation with whom OWNER has entered into the Agreement.

**1.13 Defective**

An adjective which when modifying the word Work refers to Work that is unsatisfactory, faulty or deficient, or does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents, or has been damaged prior to CONSULTANT'S recommendation of final payment (unless responsibility for the protection thereof has been assumed by OWNER).

**1.14 Drawings**

The drawings which show the character and scope of the Work to be performed and which have been prepared or approved by CONSULTANT and are referred to in the Contract Documents.

**1.15 Effective Date of the Agreement**

The date indicated in the Agreement on which it becomes effective.

**1.16 CONSULTANT**

The Lexington-Fayette Urban County Government or its authorized representative.

**1.17 Field Order**

A documented order issued by CONSULTANT which orders minor changes in the Work, but which does not involve a change in the Contract Price or the Contract Time.

**1.18 Giving Notice**

Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

**1.19 Laws and Regulations**

Laws, rules, regulations, ordinances, codes and/or orders.

**1.20 Notice of Award**

The written notice by OWNER to the apparent successful bidder stating that upon compliance by the apparent successful bidder with the conditions enumerated therein, within the time specified, OWNER will sign and deliver the Agreement.

**1.21 Notice to Proceed**

A written notice given by OWNER to CONTRACTOR fixing the date on which the Contract Time will commence to run and on which CONTRACTOR shall start to perform CONTRACTOR'S obligations under the Contract Documents.

**1.22 OWNER**

The Lexington-Fayette Urban County Government.

**1.23 Partial Utilization**

Placing a portion of the Work in service for the purpose for which it is intended (or related purpose) before reaching Completion for all the Work.

**1.24 Project**

The total construction of which the Work to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.

**1.25 Inspector**

The authorized representative who is assigned to the site or any part thereof.

**1.26 Shop Drawings**

All drawings, diagrams, illustrations, schedules and other data which are specifically prepared by or for CONTRACTOR to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a Supplier and submitted by CONTRACTOR to illustrate material or equipment for some portion of the Work.

**1.27 Specifications**

Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards and

workmanship as applied to the Work and certain administrative details applicable thereto.

**1.28 Standard Specifications**

The "Standard Specifications for Road and Bridge Construction", Transportation Cabinet, Department of Highways, Commonwealth of Kentucky, current edition. MUTCD shall refer to the "Manual of Uniform Traffic Control Devices.

**1.29 Subcontractor**

An individual, firm or corporation having a direct contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the site.

**1.30 Special Conditions**

The part of the Contract Documents which amends or supplements these General Conditions.

**1.31 Supplier**

A manufacturer, fabricator, supplier, distributor, materialman or vendor.

**1.32 Underground Facilities**

All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.

**1.33 Unit Price Work**

An amount equal to the sum of the established unit prices for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

**1.34 Work**

The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work is the result of performing services, furnishing labor and furnishing and incorporating materials and equipment into the construction, all as required by the Contract Documents.

**1.35 Time Period**

When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

## **2. PRELIMINARY MATTERS**

### **2.1 Delivery of Bonds**

When the CONTRACTOR delivers the executed Agreements to OWNER, CONTRACTOR shall also deliver to OWNER, such Bonds, Insurance Certificate, and Power of Attorney as CONTRACTOR may be required to furnish.

### **2.2 Copies of Documents**

Owner shall furnish to CONTRACTOR up to three copies (unless otherwise specified in the Special Conditions) of the Contract Documents as are reasonably necessary for the execution of the Work. Additional copies will be furnished, upon request, at the cost of reproduction.

### **2.3 Commencement of Contract Time; Notice to Proceed**

The Contract Time will commence to run on the day specified in the Notice to Proceed.

### **2.4 Starting the Project**

CONTRACTOR shall start to perform the Work on the date when the Contract Time commences to run, but no Work shall be done at the site prior to the date on which the Contract Time commences to run.

### **2.5 Before Starting Construction**

Before undertaking each part of the Work, CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. CONTRACTOR shall promptly report in writing to CONSULTANT any conflict, error or discrepancy which CONTRACTOR may discover and shall obtain a written interpretation or clarification from CONSULTANT before proceeding with any Work affected thereby; however, CONTRACTOR shall not be liable to OWNER or CONSULTANT for failure to report any conflict, error or discrepancy in the Contract Documents, unless CONTRACTOR had actual knowledge thereof or should reasonably have known thereof.

### **2.6 Submittal of Schedules**

Within ten days after the effective date of the Agreement (unless otherwise specified) CONTRACTOR shall submit to CONSULTANT for review:

**2.6.1** an estimated progress schedule indicating the starting and completion dates of the various stages of the Work;

**2.6.2** a preliminary schedule of Shop Drawing submissions; and

**2.6.3** a preliminary schedule of values for all of the Work which will include quantities and prices of items aggregating the Contract Price and will subdivide the Work into costs per labor and materials by specification

section to serve as the basis for progress payments during construction. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work which will be confirmed in writing by CONTRACTOR at the time of submission. Schedule of values shall be submitted on AIA G702/703 forms, or approved equal.

**2.7 Preconstruction Conference**

Before CONTRACTOR starts the Work at the proposed site, a conference attended by CONTRACTOR, CONSULTANT, EEO-Affirmative Action Officer, and other appropriate parties will be held to discuss the following issues: (1) The scheduling of the Work to be completed; (2) The procedures for handling shop drawings and other submittals; (3) The processing of applications for payment; (4) The establishment of an understanding among the involved parties in regard to the proposed project; (5) The establishment of procedures for effectively implementing the LFUCG's 10% minimum DBE goals; and (6) Requirement for Mechanic's Lien on Partial Applications for Payment.

**2.8 Finalizing Schedules**

At least ten days before submission of the first Application for Payment a conference attended by CONTRACTOR, CONSULTANT and others as appropriate will be held to finalize the schedules submitted in accordance with paragraph 2.6. The finalized progress schedule will be acceptable to CONSULTANT as providing orderly progression of the Work to completion within the Contract Time, but such acceptance will neither impose on CONSULTANT responsibility for the progress or scheduling of the Work nor relieve CONTRACTOR from full responsibility thereof. The finalized schedule of Shop Drawing submissions will be acceptable to CONSULTANT as providing a workable arrangement for processing the submissions. The finalized schedule of values will be acceptable to CONSULTANT as to form and substance.

**3. CONTRACT DOCUMENTS: INTENT, CONFLICTS, AMENDING AND REUSE**

**3.1 General**

The Contract Documents comprise the entire agreement between OWNER and CONTRACTOR concerning the Work. The Contract Documents are complementary; what is called for by one is as binding as if called for by all. The Contract Documents will be construed in accordance with the law of the place of the Project.

**3.2 Intent**

It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any Work, materials or equipment that may reasonably be inferred from the Contract Documents as being required to produce the intended result will be supplied whether or not specifically called for. When words which have a well-known technical or trade meaning are used

to describe Work, materials or equipment such words shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the laws or regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code or laws or regulations in effect at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall be effective to change the duties and responsibilities of OWNER, CONTRACTOR or CONSULTANT, or any of their consultants, agents or employees from those set forth in the Contract Documents, nor shall it be effective to assign to CONSULTANT, or any of CONSULTANT'S consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 8.12.3 or 8.12.4. Clarifications and interpretations of the Contract Documents shall be issued by CONSULTANT as provided in paragraph 8.4.

### **3.3 Conflicts**

If, during the performance of the Work, CONTRACTOR finds a conflict, error or discrepancy in the Contract Documents, CONTRACTOR shall so report to CONSULTANT in writing at once and before proceeding with the Work affected thereby shall obtain a written interpretation or clarification from CONSULTANT; however, CONTRACTOR shall not be liable to OWNER or CONSULTANT for failure to report any conflict, error or discrepancy in the Contract Documents unless CONTRACTOR had actual knowledge thereof or should reasonably have known thereof.

In resolving such conflicts, errors and discrepancies, the documents shall be given precedence in the following order:

1. Agreement
2. Field and Change Orders
3. Addenda
4. Special Conditions
5. Instruction to Bidders
6. General Conditions
7. Specifications and Drawings

Figure dimension on drawings shall govern over scale dimensions and detailed Drawings shall govern over general Drawings.



### **3.4 Amending and Supplementing Contract Documents**

The Contract Documents may be amended to provide for additions, deletions and revisions in the Work or to modify the terms and conditions thereof by means of a Change Order or a Field Order. Contract Price and Contract Time may only be changed by a Change Order.

### **3.5 Reuse of Documents**

Neither CONTRACTOR nor any Subcontractor or Supplier or other person or organization performing or furnishing any of the Work under a direct or indirect contract with OWNER shall have or acquire any title to or ownership rights in any of the Drawings, Specifications or other documents (or copies of any thereof) prepared by or bearing the seal of CONSULTANT; and they shall not reuse any of them on extensions of the Project or any other project without written consent of OWNER and CONSULTANT and specific written verification or adaptation by CONSULTANT.

## **4. AVAILABILITY OF LANDS; PHYSICAL CONDITIONS, REFERENCE POINTS**

### **4.1 Availability of Lands**

OWNER shall furnish, as indicated in the Contract Documents, the lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and such other lands which are designated for the use of CONTRACTOR. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by OWNER, unless otherwise provided in the Contract Documents. If CONTRACTOR believes that any delay in OWNER'S furnishing these lands, rights-of-way or easements entitles CONTRACTOR to an extension of the Contract Time, CONTRACTOR may make a claim therefor as provided in Article 11. CONSULTANT shall determine if the claim is legitimate or not. CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

### **4.2 Physical Conditions**

#### **4.2.1 Explorations and Reports**

Reference is made to the Special Conditions for identification of those reports of explorations and tests of subsurface conditions at the site that have been utilized by CONSULTANT in preparation of the Contract Documents. CONTRACTOR may rely upon the accuracy of the technical data contained in such reports, but not upon non-technical data, interpretations or opinions contained therein or for the completeness thereof for CONTRACTOR'S purposes. Except as indicated in the immediately preceding sentence and in paragraph 4.2.6, CONTRACTOR shall have full responsibility with respect to subsurface conditions at the site.

#### **4.2.2 Existing Structures**

Reference is made to the Special Conditions for identification of those drawings of physical conditions in or relating to existing surface and

subsurface structures (except Underground Facilities referred to in paragraph 4.3 which are at or contiguous to the site that have been utilized by CONSULTANT in preparation of the Contract Documents. CONTRACTOR may rely upon the accuracy of the technical data contained in such drawings, but not for the completeness thereof for CONTRACTOR'S purposes. Except as indicated in the immediately preceding sentence and in paragraph 4.2.6, CONTRACTOR shall have full responsibility with respect to physical conditions in or relating to such structures.

4.2.3 Report of Differing Conditions  
If CONTRACTOR believes that:

4.2.3.1 any technical data on which CONTRACTOR is entitled to rely as provided in paragraphs 4.2.1 and 4.2.2 is inaccurate, or

4.2.3.2 any physical conditions uncovered or revealed at the site differ materially from that indicated, reflected or referred to in the Contract Documents,

CONTRACTOR shall, promptly after becoming aware thereof and before performing and WORK in connection therewith (except in an emergency) notify OWNER and CONSULTANT in writing about the inaccuracy or difference.

4.2.4 CONSULTANT'S Review

CONSULTANT will promptly review the pertinent conditions, determine the necessity of obtaining additional explorations or tests with respect thereto and advise CONTRACTOR of CONSULTANT'S findings and conclusions.

4.2.5 Possible Document Change

If CONSULTANT concludes that there is a material error in the Contract Documents or that because of newly discovered conditions a change I the Contract Documents is required, a Change Order will be issued as provided in Article 10 to reflect and document the consequences of the inaccuracy or difference.

4.2.6 Possible Price and Time Adjustments

In each such case, an increase or decrease in the Contract Price or an extension or shortening of the Contract Time, or any combination thereof, will be allowable to the extent that they are attributable to any such inaccuracy or difference.

**4.3 Physical Conditions-Underground Facilities**

4.3.1 Shown or Indicated

The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the site is

based on information and data furnished to OWNER or CONSULTANT by the owners of such underground facilities or by others. Unless it is otherwise expressly provided in the Special Conditions:

4.3.1.1 OWNER and CONSULTANT shall not be responsible for the accuracy or completeness of any such information or data; and,

4.2.1.2 CONTRACTOR shall have full responsibility for reviewing and checking all such information and data; for locating all underground facilities shown or indicated in the Contract Documents; for coordination of the Work with the owners of such underground facilities during construction; and for the safety and protection thereof and repairing any damage thereto resulting from the Work, the cost of all of which will be considered as having been included in the Contract Price.

4.3.2 Not Shown or Indicated

If an underground facility is uncovered or revealed at or contiguous to the site which was not shown or indicated in the Contract Documents and which CONTRACTOR could not reasonably have been expected to be aware of, CONTRACTOR shall, promptly after becoming aware thereof and before performing any Work affected thereby (except in an emergency), identify the owner of such Underground Facility and give written notice thereof to that owner and to OWNER and CONSULTANT. CONSULTANT will promptly review the underground facility to determine the extent to which the Contract Documents should be modified to reflect and document the consequences of the existence of the Underground Facility, and the Contract Documents will be amended or supplemented to the extent necessary. During such time, CONTRACTOR shall be responsible for the safety and protection of such underground facility. CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, to the extent that they are attributable to the existence of any underground facility that was not shown or indicated in the Contract Documents and which CONTRACTOR could not reasonably have been expected to be aware of.

**4.4 Reference Points**

OWNER shall provide engineering surveys to establish reference points for construction which in CONSULTANT'S judgment are necessary to enable CONTRACTOR to proceed with the Work. CONTRACTOR shall be responsible for laying out the Work (unless otherwise specified), shall protect and preserve the established reference points and shall make no changes or relocations without the prior written approval of OWNER. CONTRACTOR shall report to CONSULTANT whenever any reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points by a Registered Land Surveyor.

## **5. CONTRACTOR'S RESPONSIBILITIES**

### **5.1 Supervision**

CONTRACTOR shall supervise and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. CONTRACTOR shall assure that all CONTRACTOR personnel (including subcontractors, etc.) conduct themselves in a courteous and respectful manner toward the CONSULTANT and the general public. CONTRACTOR shall keep at the Project Site during the progress of the Work a competent project manager/superintendent and all necessary assistants, all of whom shall be satisfactory to OWNER. OWNER reserves the right to reject CONTRACTOR'S construction superintendent and project management personnel if they are unsatisfactory to OWNER and upon such rejection CONTRACTOR shall designate and provide competent successors. Failure to comply with this condition of the Contract will result in immediate suspension of the Work. Following a review by the Commissioner of Public Works, the Contract may be terminated (see GC section 14). CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences and procedures of construction, but CONTRACTOR shall not be responsible for the negligence of others in the design or selection of a specific means, method, technique, sequence or procedure of construction which is indicated in and required by the Contract Documents. CONTRACTOR shall be responsible to see that the finished Work complies accurately with the Contract Documents.

### **5.2 Superintendence**

CONTRACTOR shall keep on the Work at all times during its progress a competent resident superintendent, who shall not be replaced without written notice to OWNER and CONSULTANT except under extraordinary circumstances. The superintendent will be CONTRACTOR'S representative at the site and shall have authority to act on behalf of CONTRACTOR. All communications given to the superintendent shall be as binding as if given to CONTRACTOR.

### **5.3 Labor**

CONTRACTOR shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. CONTRACTOR shall at all times maintain good discipline and order at the site. OWNER reserves the right to require CONTRACTOR to remove from the Project any of it's personnel, or subcontractor's personnel for violating LFUCG Policies, Rules or Regulations. Except in connection with the safety or protection of persons or the Work or property at the site or adjacent thereto, and except as otherwise indicated in the Contract Documents, all Work at the site shall be performed during regular working hours, and CONTRACTOR will not permit overtime work or the performance of Work on Saturday, Sunday or any legal holiday without OWNER'S written consent given after prior written notice to CONSULTANT.

#### **5.4 Start-Up and Completion of Work**

Unless otherwise specified, CONTRACTOR shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and completion of the Work.

#### **5.5 Materials and Equipment**

All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. If required by CONSULTANT, CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable supplier except as otherwise provided in the Contract Documents; but no provision of any such instructions will be effective to assign to CONSULTANT, or any of CONSULTANT'S consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 8.12.3 or 8.12.4.

##### **5.5.1 Not Clearly Specified or Indicated**

In all instances where materials specified are obtainable in different sizes, weights, trade grades, qualities or finishes, etc., whose weights, trade grades, qualities or finishes, etc., are not clearly specified or indicated on the Drawings, the CONTRACTOR shall notify the CONSULTANT of all such instances at least five (5) days in advance of receiving the proposals. The CONSULTANT will then determine which size, weight, trade grade, quality, finish, etc., is required.

##### **5.5.2 Coordination of Work**

The CONTRACTOR shall see that for his own Work and for the work of each subcontractor, proper templates and patterns necessary for the coordination of the various parts of the Work are prepared. The CONTRACTOR shall furnish or require the Subcontractor to furnish such duplicates as will enable the Subcontractors to fit together and execute fully their respective portions of the Work.

#### **5.6 Adjusting Progress Schedule**

CONTRACTOR shall submit to CONSULTANT for acceptance (to the extent indicated in paragraph 2.8) adjustments in the progress schedule to reflect the impact thereon of new developments; these will conform generally to the progress schedule then in effect and additionally will comply with any provisions of the Contract Documents applicable thereto.

## 5.7 Substitutes or “Or-Equal” Items

### 5.7.1 General

Whenever materials or equipment are specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular supplier, the naming of the item is intended to establish the type, function, and quality required. Unless the name is followed by words indicating that no substitution is permitted, materials or equipment of other Suppliers may be accepted by OWNER/CONSULTANT if sufficient information is submitted by CONTRACTOR to allow OWNER/CONSULTANT to determine that the material or equipment proposed is equivalent or equal to that named. The procedure for review by OWNER/CONSULTANT will include the following. Requests for review of substitute items of material and equipment will not be accepted by OWNER/CONSULTANT from anyone, other than CONTRACTOR. If CONTRACTOR wishes to furnish or use a substitute item of material or equipment, CONTRACTOR shall make written application to OWNER/CONSULTANT for acceptance thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the same use as that specified. The application will state that the evaluation and acceptance of the proposed substitute will not prejudice CONTRACTOR’S achievement of completion on time, whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) to adapt the design to the proposed substitute and whether or not incorporation or use of the substitute in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified will be identified in the application and available maintenance, repair and replacement service will be indicated. The application will also contain an itemized estimate of all costs that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which shall be considered by OWNER/CONSULTANT in evaluating the proposed substitute. OWNER/CONSULTANT may require CONTRACTOR to furnish at CONTRACTOR’S expense additional data about the proposed substitute.

### 5.7.2 Substitutes

If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents, CONTRACTOR may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to OWNER/CONSULTANT, if CONTRACTOR submits sufficient information to allow OWNER/CONSULTANT to determine that the substitute proposed is equivalent to that indicated or required by the Contract

Documents. The procedure for review by OWNER/CONSULTANT will be similar to that provided in paragraph 5.7.1 as applied by OWNER/CONSULTANT.

5.7.3 OWNER/CONSULTANT'S Approval

OWNER/CONSULTANT will be allowed a reasonable time within which to evaluate each proposed substitute. OWNER/CONSULTANT will be the sole judge of acceptability, and no substitute will be ordered, installed or utilized without OWNER/CONSULTANT'S prior written acceptance which will be evidenced by either a Change Order or an approved Shop Drawing. OWNER may require CONTRACTOR to furnish at CONTRACTOR'S expense a special performance guarantee or other surety with respect to any substitute. OWNER/CONSULTANT will record time required by OWNER/CONSULTANT and OWNER/CONSULTANT'S consultants in evaluating substitutions proposed by CONTRACTOR and in making changes in the Contract Documents occasioned thereby. Whether or not OWNER/CONSULTANT accepts a proposed substitute, CONTRACTOR shall reimburse OWNER for the charges of OWNER/CONSULTANT and OWNER/CONSULTANT'S consultants for evaluating each proposed substitute.

**5.8 Subcontractors, Suppliers, and Others**

5.8.1 Acceptable to CONSULTANT

CONTRACTOR shall not employ any Subcontractor, Supplier or other person or organization (including those acceptable to OWNER and CONSULTANT as indicated in paragraph 5.8.2), whether initially or as a substitute, against whom OWNER or CONSULTANT may have reasonable objection. CONTRACTOR shall not be required to employ any Subcontractor, Supplier or other person or organization to furnish or perform any of the Work against whom CONTRACTOR has reasonable objection.

5.8.2 Objection After Due Investigation

If the Contract Documents require the identity of certain Subcontractors, Suppliers or other persons or organizations (including those who are to furnish the principal items of materials and equipment) to be submitted to OWNER in advance of the specified date prior to the Effective Date of the Agreement for acceptance by OWNER and CONSULTANT and if CONTRACTOR has submitted a list thereof, OWNER'S or CONSULTANT'S acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the bidding documents or the Contract Documents) of any such Subcontractor, Supplier or other person or organization so identified may be revoked on the basis of reasonable objection after due investigation, in which case CONTRACTOR shall submit an acceptable substitute. No acceptance by

OWNER or CONSULTANT of any such Subcontractor, Supplier or other person or organization shall constitute a waiver of any right of OWNER or CONSULTANT to reject defective Work.

5.8.3 Contractor Responsible for Acts of Subcontractors

The CONTRACTOR shall perform on the site, and with its own organization, work equivalent to at least fifty (50) percent of the total amount of Work to be performed under the Contract. This percentage may be reduced by a supplemental agreement to this Contract if, during performing the Work, the CONTRACTOR requests a reduction and the Urban County project manager determines that the reduction would be to the advantage of the Urban County Government.

The CONTRACTOR shall, at the time he submits his proposal for the Contract, notify the OWNER in writing of the names of Subcontractors proposed for the Work. He shall not employ any Subcontractor without the prior written approval of the OWNER.

CONTRACTOR shall be fully responsible to OWNER and CONSULTANT for all acts and omissions of the Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR just as CONTRACTOR is responsible for CONTRACTOR'S own acts and omissions. Nothing in the Contract Documents shall create any contractual relationship between OWNER or CONSULTANT and any such Subcontractor, Supplier or other person or organization, nor shall it create any obligation on the part of OWNER or CONSULTANT to pay or to see to the payment of any moneys due any such Subcontractor, Supplier or other person or organization except as may otherwise be required by Laws and Regulations.

5.8.4 Division of Specifications

The divisions and sections of the Specifications and the identifications of any Drawings shall not control CONTRACTOR in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

5.8.5 Agreement Between Contractor and Subcontractors

All Work performed for CONTRACTOR by a Subcontractor will be pursuant to an appropriate agreement between CONTRACTOR and the Subcontractor which specifically binds the Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of OWNER and CONSULTANT.

5.8.6 Statements and Comments by CONTRACTOR

Neither the CONTRACTOR, his employees, nor his subcontractors shall at any time make any statement or comment as



to the project scope, nature, intention, design, or construction method to any third party or parties without the explicit written consent of the OWNER.

Any third party requesting such information shall be referred to the OWNER or his representative.

Should there be any change from the original intent of the project as a result of any statement or comment by the contractor, his employees or subcontractors, contractor shall be held liable for any change in the scope, nature, design, or construction method and shall bear the full cost for the previously mentioned changes.

**5.9 Patent Fees and Royalties**

CONTRACTOR shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product or device which is the subject of patent rights or copyrights held by others.

**5.10 Permits**

Unless otherwise provided in the Special conditions, CONTRACTOR shall obtain and pay for all construction permits and licenses. OWNER shall assist CONTRACTOR, when necessary, in obtaining such permits and licenses. CONTRACTOR shall pay all governmental charges and inspection fees necessary for the prosecution of the Work, which are applicable at the time of opening of Bids, or if there are no Bids on the Effective Date of the Agreement. CONTRACTOR shall pay all charges of utility owners for connections to the Work, and OWNER shall pay all charges of such utility owners for capital costs related thereto such as plant investment fees.

## **5.11 Laws and Regulations**

### **5.11.1 CONTRACTOR to Comply**

CONTRACTOR shall give all notices and comply with all Laws and Regulations applicable to furnishing and performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither OWNER nor CONSULTANT shall be responsible for monitoring CONTRACTOR'S compliance with any Laws and Regulations.

### **5.11.2 Specifications and Drawings at Variance**

If CONTRACTOR observes that the Specifications or Drawings are at variance with any Laws or Regulations, CONTRACTOR shall give CONSULTANT prompt written notice thereof, and any necessary changes will be authorized by one of the methods indicated in paragraph 3.4. If CONTRACTOR performs any Work knowing or having reason to know that it is contrary to such Laws, or Regulations, and without such notice to CONSULTANT, CONTRACTOR shall bear all costs arising therefrom; however, it shall not be CONTRACTOR'S primary responsibility to make certain that the Specifications and Drawings are in accordance with such Laws and Regulations.

Any party, firm or individual submitting a proposal pursuant to invitation must have paid all taxes owed to the Lexington-Fayette Urban County Government at the time the proposal is submitted, and must maintain a "current" status in regard to those taxes throughout the Contract. If applicable, business must be licensed in Fayette County.

## **5.12 Taxes**

CONTRACTOR shall pay all sales, consumer, use and other similar taxes required to be paid by CONTRACTOR in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work. Any party, firm or individual submitting a proposal pursuant to invitation must have paid all taxes owed to the Lexington-Fayette Urban County Government at the time the proposal is submitted, and must maintain a "current" status in regard to those taxes throughout the Contract. If applicable, business must be licensed in Fayette County.

## **5.13 Use of Premises**

### **5.13.1 Project Site**

CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workers to the staging areas or work site areas identified in and permitted by the Contract Documents and other land and areas permitted by Laws and Regulations, rights-of-way, permits and easements, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. CONTRACTOR shall assume full responsibility for any damage to any such

land or area, or to the owner or occupant thereof or of any land or areas contiguous thereto, resulting from the performance of the Work. Should any claim be made against OWNER or CONSULTANT by any such owner or occupant because of the performance of the Work, CONTRACTOR shall promptly attempt to settle with such other party by agreement or otherwise resolve the claim by arbitration or at law. CONTRACTOR shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold OWNER and CONSULTANT harmless from and against all claims, damages, losses and expenses (including, but not limited to, fees of engineers, architects, attorneys and other professionals and court and arbitration costs) arising directly, indirectly or consequentially out of any action, legal or equitable, brought by any such other party against OWNER or CONSULTANT to the extent based on a claim arising out of CONTRACTOR'S performance of the Work.

#### 5.13.2 Clean UP

During the progress of the Work, CONTRACTOR shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work, CONTRACTOR shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery, and surplus materials, and shall leave the site clean and ready for occupancy by OWNER. CONTRACTOR shall restore to original condition all property not designated for alteration by the Contract Documents.

#### 5.13.1 Loading of Structures

CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall CONTRACTOR subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

### 5.14 **Record Drawings**

CONTRACTOR shall maintain in a safe place at the site one record copy of all Drawings, Specifications, Addenda, Change Orders, Field Orders and written interpretations and clarifications (issued pursuant to paragraph 9.4) in good order and annotated to show all changes made during construction. These record documents together with all approved samples and a counterpart of all approved Shop Drawings will be available to CONSULTANT for reference. Upon completion of the Work, these record documents, samples and Shop Drawings will be delivered to CONSULTANT for OWNER.

### 5.15 **Shop Drawings and Samples**

#### 5.15.1 Shop Drawing Submittals

After checking and verifying all field measurements and after complying

with applicable procedures specified, CONTRACTOR shall submit to CONSULTANT for review and approval in accordance with the accepted schedule of Shop Drawing submissions (see paragraph 2.8), or for other appropriate action if so indicated in the Special Conditions, five copies (unless otherwise specified) of all Shop Drawings, which will bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR'S responsibilities under the Contract Documents with respect to the review of the submission. All submissions will be identified as CONSULTANT may require. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials and similar data to enable CONSULTANT to review the information as required.

5.15.2 Sample Submittals

CONTRACTOR shall also submit to CONSULTANT for review and approval with such promptness as to cause no delay in Work, all samples required by the Contract Documents. All samples will have been checked by and accompanied by a specific written indication that CONTRACTOR has satisfied CONTRACTOR'S responsibilities under the Contract Documents with respect to the review of the submission and will be identified clearly as to material, Supplier, pertinent data such as catalog numbers and the use for which intended.

5.15.3 Review by CONTRACTOR

Before submission of each Shop Drawing or sample CONTRACTOR shall have determined and verified all quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers and similar data with respect thereto and reviewed or coordinated each Shop Drawing or sample with other Shop Drawings and samples and with the requirements of the Work and the Contract Documents.

5.15.4 Notice of Variation

At the time of each submission, CONTRACTOR shall give CONSULTANT specific written notice of each variation that the Shop Drawings or samples may have from the requirements of the Contract Documents, and, in addition, shall cause a specific notation to be made on each Shop Drawing submitted to CONSULTANT for review and approval of each such variation.

5.15.5 CONSULTANT'S Approval

CONSULTANT will review and approve with reasonable promptness Shop Drawings and samples, but CONSULTANT'S review and approval will be only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents and shall not extend to means, methods, techniques, sequences or procedures of construction (except where a specific means, method, technique, sequence or

procedure of construction is indicated in or required by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions. CONTRACTOR shall make corrections required by CONSULTANT, and shall return the required number of corrected copies of Shop Drawings and submit, as required, new samples for review and approval. CONTRACTOR shall direct specific attention in writing to revisions other than the corrections called for by CONSULTANT on previous submittals.

**5.15.6 Responsibility for Errors and Omissions**

CONSULTANT'S review and approval of Shop Drawings or samples shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract Documents unless CONTRACTOR has in writing called CONSULTANT'S attention to each such variation at the time of submission as required by paragraph 5.15.4 and CONSULTANT has given written approval of each such variation by a specific written notation thereof incorporated in or accompanying the Shop Drawing or sample approval; nor will any approval by CONSULTANT relieve CONTRACTOR from responsibility for errors or omissions in the Shop Drawings or from responsibility for having complied with the provisions of paragraph 5.15.3.

**5.15.7 Cost of Related Work**

Where a Shop or sample is required by the Specifications, any related Work performed prior to CONSULTANT'S review and approval of the pertinent submission will be the sole expense and responsibility of CONTRACTOR.

**5.16 Continuing the Work**

CONTRACTOR shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with OWNER. No Work shall be delayed or postponed pending resolutions of any disputes or disagreements, except as permitted by paragraph 14.5 or as CONTRACTOR and OWNER may otherwise agree in writing.

**5.17 Erosion and Sediment Control**

**5.17.1 General Environmental Requirements**

The CONTRACTOR and Subcontractors performing work on projects on behalf of the OWNER shall comply with all applicable federal, state, and local environmental regulations and all requirements and conditions set forth in "special" permits including but not limited to Corp of Engineers 404 permits, 401 Water Quality Certifications, Stream Crossing and Floodplain Encroachment Permits.

Any fines or penalties resulting from the failure to comply with the terms of the federal, state or local permits or perform necessary corrective action are solely the obligation of the CONTRACTOR.

5.17.2 Stormwater Pollution Prevention

A. The CONTRACTOR shall exercise due care to prevent or minimize any damage to any stream or wetland from pollution by debris, sediment or other material. The operation of equipment and/or materials in a jurisdictional wetland is expressly prohibited. Water that has been used for washing or processing, or that contains oils, sediments or other pollutants shall not be discharged from the job site. Such waters shall be collected and properly disposed of by the CONTRACTOR in accordance with applicable local, state and federal law.

B. The CONTRACTOR is solely responsible for securing all required state and local permits associated with stormwater discharges from the project including, but not necessarily limited to the KY Notice of Intent to Disturb (NOI) for Coverage of Storm Water Discharges Associated with Construction Activities under the KPDES Storm Water General Permit KYR100000 and the LFUCG, Land Disturbance Permit. Permit application preparation and all required documentation are the responsibility of the CONTRACTOR. The CONTRACTOR is solely responsible for maintaining compliance with the stormwater pollution prevention plan or erosion and sediment control plan and ensuring the following:

- a. That the Stormwater Pollution Prevention Plan (SWPPP) or erosion control plan is current and available for review on site;
- b. That any and all stormwater inspection reports required by the permit are conducted by qualified personnel and are available for review onsite; and
- c. That all best management practices (BMPs) are adequately maintained and effective at controlling erosion and preventing sediment from leaving the site.

C. The CONTRACTOR shall provide the necessary equipment and personnel to perform any and all emergency measures that may be required to contain any spillage or leakage and to remove materials, soils or liquids that become contaminated. The collected spill material shall be properly disposed at the CONTRACTOR's expense.

D. Upon completion of the work and with the concurrence of the OWNER, the CONTRACTOR must file a Notice of Termination (NOT) of Coverage Under the KPDES General Permit for Storm Water Discharges Associated with Construction Activity with the appropriate local and state authorities.

E. Any fines or penalties resulting from the failure to comply with the terms of the state or local stormwater permits or perform necessary corrective action are solely the obligation of the CONTRACTOR.

## **6. OTHER WORK**

### **6.1 Related Work at Site**

OWNER may perform other work related to the Project at the site by OWNER'S own forces, have other work performed by utility owners or let other direct contracts therefor which shall contain General Conditions similar to these. If the fact that such other work is to be performed was not noted in the Contract Documents, written notice thereof will be given to CONTRACTOR prior to starting any such other work; and, if such performance will involve additional expense to CONTRACTOR or requires additional time, a Change Order to the Contract will be negotiated.

### **6.2 Other Contractors or Utility Owners**

CONTRACTOR shall afford each utility owner and other contractor who is a party to such a direct contract (or OWNER, if OWNER is performing the additional work with OWNER'S employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such work, and shall properly connect and coordinate the Work with theirs. CONTRACTOR shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work. CONTRACTOR shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of CONSULTANT and the others whose work will be affected. The duties and responsibilities of CONTRACTOR under this paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of CONTRACTOR in said direct contracts between OWNER and such utility owners and other contractors.

### **6.3 Delays Caused by Others**

If any part of CONTRACTOR'S Work depends for proper execution or results upon the work of any such other contractor or utility owner (or OWNER), CONTRACTOR shall inspect and promptly report to CONSULTANT in writing any delays, defects or deficiencies in such work that render it unavailable or unsuitable for such proper execution and results. CONTRACTOR'S failure so to report will constitute an acceptance of the other work as fit and proper for integration with CONTRACTOR'S Work except for latent or non-apparent defects and deficiencies in the other work.

### **6.4 Coordination**

If OWNER contracts with others for the performance of other work on the Project at the site, the person or organization who will have authority and responsibility for coordination of the activities among the various prime contractors will be identified in the Special Conditions, and the specific matters to be covered by such authority and

responsibility will be itemized, and the extent of such authority and responsibilities will be provided, in the Special Conditions.

## **7. OWNER'S RESPONSIBILITIES**

### **7.1 Communications**

OWNER shall issue all communications to CONTRACTOR through CONSULTANT.

### **7.2 Data and Payments**

OWNER shall furnish the data required of OWNER under the Contract Documents promptly after they are due.

### **7.3 Lands, Easements, and Surveys**

OWNER'S duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in paragraphs 4.1 and 4.4. Paragraph 4.2 refers to OWNER'S identifying and making available to CONTRACTOR copies of reports of explorations and tests of subsurface conditions at the site and in existing structures which have been utilized by CONSULTANT in preparing the Drawings and Specifications.

### **7.4 Change Orders**

OWNER is obligated to execute Change Orders as indicated in paragraph 9.4.

### **7.5 Inspections, Tests and Approvals**

OWNER'S responsibility in respect to certain inspections, tests and approvals is set forth in paragraph 13.3.

### **7.6 Stop or Suspend Work**

In connection with OWNER'S right to stop Work or suspend Work, see paragraph 12.4 and 14.1 Paragraph 14.2 deals with OWNER'S rights to terminate services of CONTRACTOR under certain circumstances.

## **8. CONSULTANT'S STATUS DURING CONSTRUCTION**

### **8.1 OWNER'S Representative**

CONSULTANT will be OWNER'S representative during the construction period. The duties and responsibilities and the limitations of authority of CONSULTANT as OWNER'S representative during construction are set forth in the Contract Documents and shall not be extended without written consent of OWNER and CONSULTANT.

### **8.2 Visits to Site**

CONSULTANT will make visits to the site at intervals appropriate to the various stages of construction to observe the progress and quality of the executed Work and to determine, in general, if the Work is proceeding in accordance with the Contract Documents. CONSULTANT will not be required to make exhaustive or



continuous on-site inspections to check the quality or quantity of the Work. CONSULTANT'S efforts will be directed toward providing for OWNER a greater degree of confidence that the completed Work will conform to the Contract Documents. On the basis of such visits and on-site observations, CONSULTANT will keep OWNER informed of the progress of the Work and will endeavor to guard OWNER against defects and deficiencies in the Work.

**8.3 Project Representation**

CONSULTANT will provide an Inspector to assist CONSULTANT in observing the performance of the Work. If OWNER designates another agent to represent OWNER at the site who is not CONSULTANT'S agent or employee, the duties, responsibilities and limitations of authority of such other person will be as provided in the Special Conditions.

**8.4 Clarifications and Interpretations**

CONSULTANT will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents (in the form of Drawings or otherwise) as CONSULTANT may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the Contract Documents.

**8.5 Authorized Variations in Work**

CONSULTANT may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Time and are consistent with the overall intent of the Contract Documents. These may be accomplished by a Field Order.

**8.6 Rejecting Defective Work**

CONSULTANT will have authority to disapprove or reject Work which CONSULTANT believes to be defective, and will also have authority to require special inspection or testing of the Work as provided in paragraph 12.3, whether or not the Work is fabricated, installed or completed.

**8.7 Shop Drawings**

In connection with CONSULTANT'S responsibility for Shop Drawings and samples, see paragraphs 5.15.1 through 5.16 inclusive.

**8.8 Change Orders**

In connection with CONSULTANT'S responsibilities as to Change Orders, see Articles 10, 11 and 12.

**8.9 Payments**

In connection with CONSULTANT'S responsibilities with respect to Applications for Payment, etc., see Article 13.

**8.10 Determinations for Unit Prices**

CONSULTANT will determine the actual quantities and classifications of Unit Price Work performed by CONTRACTOR.

CONSULTANT will review with CONTRACTOR CONSULTANT'S preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise).

**8.11 Decision on Disputes**

CONSULTANT will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. Claims, disputes and other matters relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents pertaining to the performance and furnishing of the Work and claims under Articles 10 and 11 in respect of changes in the Contract Price or Contract Time will be referred initially to CONSULTANT in writing with a request for a formal decision in accordance with this paragraph, which CONSULTANT will render in writing within a reasonable time. Written notice of each such claim, dispute and other matter will be delivered to CONSULTANT promptly (but in no event later than thirty days) after the occurrence of the event giving rise thereto, and written supporting data will be submitted to CONSULTANT within sixty days after such occurrence unless CONSULTANT allows an additional period of time to ascertain more accurate data in support of the claim.

**8.12 Limitations on CONSULTANT'S Responsibilities**

**8.12.1 CONTRACTOR, Supplier, or Surety**

Neither CONSULTANT'S authority to act under this Article 8 or elsewhere in the Contract Documents nor any decision made by CONSULTANT in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of CONSULTANT to CONTRACTOR, any Subcontractor, any Supplier, or any other person or organization performing any of the Work, or to any surety for any of them.

**8.12.2 To Evaluate the Work**

Whenever in the Contract Documents the terms "as ordered", "as directed", "as required", "as allowed", "as approved" or terms of like effect or import are used, or the adjectives "reasonable", "suitable", "acceptable", "proper", or "satisfactory" or adjectives or like "effect" or "import" are used to describe a requirement, direction, review or judgment of CONSULTANT as to the Work, it is intended that such requirement, direction, review or judgment will be solely to evaluate the Work for compliance with the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective shall not be effective to assign CONSULTANT any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 8.12.3 or 8.12.4.

8.12.3 CONTRACTOR'S Means, Methods, Etc.

CONSULTANT will not be responsible for CONTRACTOR'S means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, and CONSULTANT will not be responsible for CONTRACTOR'S failure to perform or furnish the Work in accordance with the Contract Documents.

8.12.4 Acts of Omissions of CONTRACTOR

CONSULTANT will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.

**9. CHANGES IN THE WORK**

**9.1 OWNER May Order Change**

Without invalidating the Agreement and without notice to any surety, OWNER may, at any time or from time to time, order additions, deletions or revisions in the Work; these will be authorized by a Change Order. Upon receipt of such notice, CONTRACTOR shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

**9.2 Claims**

Claims for an increase or decrease in the Contract Price or an extension or shortening of the Contract Time that should be allowed as a result of a Change Order will be settled as provided for in Article 10 or Article 11.

**9.3 Work Not in Contract Documents**

CONTRACTOR shall not be entitled to an increase in the Contract Price or an extension of the Contract Time with respect to any Work performed that is not required by the Contract Documents as amended, modified and supplemented as provided in paragraph 3.4, except in the case of an emergency and except in the case of uncovering Work as provided in paragraph 12.3.4.

**9.4 Change Orders**

OWNER and CONTRACTOR shall execute appropriate Change Orders covering:

9.4.1 changes in the Work which are ordered by OWNER pursuant to paragraph 9.1, are required because of acceptance of defective Work under paragraph 12.7 or corrective defective Work under paragraph 12.8, or are agreed to by the parties;

9.4.2 changes in the Contract Price or Contract Time which are agreed to by the parties; and

9.4.3 changes in the Contract Price or Contract Time which embody the substance of any written decision rendered by CONSULTANT pursuant to paragraph 8.11; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and REGULATIONS, but during any such appeal, CONTRACTOR shall carry on the Work and adhere to the progress schedule as provided in paragraph 5.16.

**9.5 Notice of Change**

If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Time) is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be CONTRACTOR'S responsibility, and the amount of each applicable Bond will be adjusted accordingly.

**10. CHANGE OF CONTRACT PRICE**

**10.1 Total Compensation**

The Contract Price constitutes the total compensation (subject to authorized adjustments) payable to CONTRACTOR for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by CONTRACTOR shall be at his expense without change in the Contract Price.

**10.2 Claim for Increase or Decrease in Price**

The Contract Price may only be changed by a Change Order. Any claim for an increase or decrease in the Contract Price shall be based on written notice delivered by the CONTRACTOR to the CONSULTANT promptly (but in no event later than thirty days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the amount of the claim with supporting data shall be delivered within sixty days after such occurrence (unless CONSULTANT allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by CONTRACTOR'S written statement that the amount claimed covers all known amounts (direct, indirect, and consequential) to which the CONTRACTOR is entitled as a result of the occurrence of said event.

**10.3 Value of Work**

The value of any Work covered by a Change Order or of any claim for an increase or decrease in the Contract Price shall be determined in one of the following ways:

**10.3.1 Unit Prices**

Where the Work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities of

the items involved (subject to the provisions of paragraphs 10.9.1. through 10.9.3, inclusive).

10.3.2 Lump Sum

By mutual acceptance of a lump sum (which may include an allowance for overhead and profit not necessarily in accordance with paragraph 10.6.2.1).

10.3.3 Cost Plus Fee

On the basis of the Cost of the Work (determined as provided in paragraphs 10.4 and 10.5) plus a CONTRACTOR'S fee for overhead and profit (determined as provided in paragraphs 10.6 and 10.7).

**10.4 Cost of the Work**

The term Cost of the Work means the sum of all costs necessarily incurred and paid by CONTRACTOR in the proper performance of the Work. Except as otherwise may be agreed to in writing by OWNER, such costs shall be in amounts no higher than those prevailing in the locality of the Project; shall include only the following items; and shall not include any of the costs itemized in paragraph 10.5:

10.4.1 Payroll Costs

Payroll costs for employees in the direct employ of CONTRACTOR in the performance of the Work under schedules of job classifications agreed upon by OWNER and CONTRACTOR. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, workers' or workmen's compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. Such employees shall include superintendents and foremen at the site. The expenses of performing Work after regular working hours, on Saturday, Sunday or legal holidays, shall be included in the above to the extent authorized by OWNER.

10.4.2 Materials and Equipment Costs

Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to CONTRACTOR unless OWNER deposits funds with CONTRACTOR with which to make payments, in which case the cash discounts shall accrue to OWNER. All trade discounts, rebates and refunds and all returns from sale of surplus materials and equipment shall accrue to OWNER, and CONTRACTOR shall make provisions so that they may be obtained.

#### 10.4.3 Subcontractor Costs

Payments made by CONTRACTOR to the Subcontractors for Work performed by Subcontractors. If required by OWNER, CONTRACTOR shall obtain competitive bids from Subcontractors acceptable to CONTRACTOR and shall deliver such bids to OWNER who will then determine, with the advice of CONSULTANT, which bids will be accepted. If a subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work Plus a Fee, the Subcontractor's Cost of the Work shall be determined in the same manner as CONTRACTOR'S Cost of the Work. All subcontracts shall be subject to the other provisions of the Contract Documents insofar as applicable.

#### 10.4.4 Special Consultant Costs

Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys and accountants) employed for services specifically related to the Work.

#### 10.4.5 Supplemental Costs

10.4.5.1 The proportion of necessary transportation, travel and subsistence expenses of CONTRACTOR'S employees incurred in discharge of duties connected with the Work.

10.4.5.2 Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost less market value of such items used but not consumed which remain the property of CONTRACTOR.

10.4.5.3 Rentals of all construction equipment and machinery and the parts thereof whether rented from CONTRACTOR or others in accordance with rental agreements approved by OWNER with the advice of CONSULTANT, and the costs of transportation, loading, unloading, installation, dismantling and removal shall be in accordance with terms of said rental agreements. The rental of any such equipment, machinery or parts shall cease when the use thereof is no longer necessary for the Work.

10.4.5.4 Sales, consumer, use or similar taxes related to the Work, and for which CONTRACTOR is liable, imposed by Laws and Regulations.

10.4.5.5 Deposits lost for causes other than negligence of CONTRACTOR, any Subcontractor or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

10.4.5.6 Losses and damages (and related expenses), not compensated by insurance or otherwise, to the Work or otherwise sustained by CONTRACTOR in connection with the performance and furnishing of the Work (except losses and damages within the deductible amounts of property insurance established by OWNER), provided they have resulted from causes other than the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of OWNER. No such losses, damages and expenses shall be included in the Cost of the Work for the purpose of determining CONTRACTOR'S fee. If, however, any such loss or damage requires reconstruction and CONTRACTOR is placed in charge thereof, CONTRACTOR shall be paid a fee proportionate to that stated in paragraph 10.6.2 for services.

10.4.5.7 The cost of utilities, fuel and sanitary facilities at the site.

10.4.5.8 Minor expenses such as telegrams, long distance telephone calls, telephone service at the site, expressage and similar petty cash items in connection with the Work.

10.4.5.9 Cost of premiums for additional Bonds and insurance required because of changes in the Work and premiums for property insurance coverage within the limits of the deductible amounts established by OWNER.

## **10.5 Not to Be Included in Cost of the Work**

The term Cost of the Work shall not include any of the following:

### **10.5.1 Costs of Officers and Executives**

Payroll costs and other compensation of CONTRACTOR'S officers, executives, principals (of partnership and sole proprietorships), general

managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed by CONTRACTOR whether at the site or in CONTRACTOR'S principal or a branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in paragraph 10.4.1 or specifically covered by paragraph 10.4.4 - all of which are to be considered administrative costs covered by the CONTRACTOR'S fee.

10.5.2 Principal Office

Expenses of CONTRACTOR'S principal and branch offices other than CONTRACTOR'S office at the site.

10.5.3 Capital Expense

Any part of CONTRACTOR'S capital expenses, including interest on CONTRACTOR'S capital employed for the Work and charges against CONTRACTOR for delinquent payments.

10.5.4 Bonds and Insurance

Cost of premiums for all Bonds and for all insurance whether or not CONTRACTOR is required by the Contract Documents to purchase and maintain the same (except for the cost of premiums covered by subparagraph 10.4.5.9 above).

10.5.5 Costs Due to Negligence

Costs due to the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied and making good any damage to property.

10.5.6 Other Costs

Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraph 10.4.



## **10.6 Contractor's Fee**

The CONTRACTOR'S Fee allowed to CONTRACTOR for overhead and profit shall be determined as follows:

10.6.1 a mutually acceptable fixed fee; or if none can be agreed upon,

10.6.2 a fee based on the following percentages of the various portions of the Cost of the Work:

10.6.2.1 for costs incurred under paragraphs 10.4.1 and 10.4.2, the CONTRACTOR'S fee shall be fifteen percent;

10.6.2.2 for costs incurred under paragraph 10.4.3, the CONTRACTOR'S fee shall be five percent; and if a subcontract is on the basis of Cost of the Work Plus a fee, the maximum allowable to CONTRACTOR on account of overhead and profit of all Subcontractors shall be fifteen percent;

10.6.2.3 no fee shall be payable on the basis of costs itemized under paragraphs 10.4.4, 10.4.5 and 10.5;

10.6.2.4 the amount of credit to be allowed by CONTRACTOR to OWNER for any such change which results in a net decrease in cost will be the amount of the actual net decrease plus a deduction in CONTRACTOR'S Fee by an amount equal to ten percent of the net decrease; and

10.6.2.5 when both additions and credits are involved in any one change, the adjustment in CONTRACTOR'S fee shall be computed on the basis of the net change in accordance with paragraphs 10.6.2.1 through 10.6.2.4, inclusive.

## **10.7 Itemized Cost Breakdown**

Whenever the cost of any Work is to be determined pursuant to paragraph 10.4 or 10.5, CONTRACTOR will submit in form acceptable to CONSULTANT an itemized cost breakdown together with supporting data.

## **10.8 Cash Allowances**

It is understood that CONTRACTOR has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be done by such Subcontractors or Suppliers and for such sums within the limit of the allowances as may be acceptable to CONSULTANT, CONTRACTOR agrees that:

10.8.1 Materials and Equipment

The allowances include the cost to CONTRACTOR (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the site, and all applicable taxes; and

10.8.2 Other Costs

CONTRACTOR'S costs for unloading and handling on the site, labor, installation costs, overhead, profit and other expenses contemplated for the allowances have been included in the Contract Price and not in the allowances. No demand for additional payment on account of any thereof will be valid.

10.8.3 Change Order

Prior to final payment, an appropriate Change Order will be issued as recommended by CONSULTANT to reflect actual amounts due CONTRACTOR on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

**10.9 Unit Price Work**

10.9.1 General

Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the established unit prices for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by CONTRACTOR will be made by CONSULTANT in accordance with Paragraph 8.10.

10.9.2 Overhead and Profit

Each unit price will be deemed to include an amount considered by CONTRACTOR to be adequate to cover CONTRACTOR'S overhead and profit for each separately identified item.

10.9.3 Claim for Increase in Unit Price

Where the quantity of any item of Unit Price Work performed by CONTRACTOR differs materially and significantly from the estimated quantity of such item indicated in the Agreement and there is no corresponding adjustment with respect to any other item of Work and if CONTRACTOR believes that CONTRACTOR has incurred additional expense as a result thereof, CONTRACTOR may make a claim for an increase in the Contract Price in accordance with Article 10.

## **11. CHANGE OF CONTRACT TIME**

### **11.1 Change Order**

The Contract Time may only be changed by a Change Order. Any claim for an extension or shortening of the Contract Time shall be based on written notice delivered to CONSULTANT promptly (but in no event later than thirty days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the extent of the claim with supporting data shall be delivered within sixty days after such occurrence (unless CONSULTANT allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by the claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant has reason to believe it is entitled as a result of the occurrence of said event. All claims for adjustment in the Contract Time shall be determined by CONSULTANT in accordance with paragraph 8.11. No claim for an adjustment in the Contract Time will be valid if not submitted in accordance with the requirements of this paragraph 11.1.

### **11.2 Justification for Time Extensions**

The Contract Time will be extended in an amount equal to time lost due to delays beyond the control of CONTRACTOR if a claim is made therefore as provided in paragraph 11.1. Such delays shall include, but not be limited to, acts or neglect by OWNER or others performing additional work as contemplated by Article 6, or to fires, floods, labor disputes, epidemics, abnormal weather conditions or acts of God.

### **11.3 Time Limits**

All time limits stated in the Contract Documents are of the essence of the Agreement. The provisions of this Article 11 shall not exclude recovery for damages (including but not limited to fees and charges of engineers, architects, attorneys and other professionals and court costs) for delay by either party.

## **12. WARRANTY AND GUARANTEE; TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK**

### **12.1 Warranty and Guarantee**

CONTRACTOR warrants and guarantees to OWNER and CONSULTANT that all Work will be in accordance with the Contract Documents and will not be defective. All defective Work, whether or not in place, may be rejected, corrected or accepted as provided in this Article 12.

### **12.2 Access to Work**

CONSULTANT and CONSULTANT'S representatives, other representatives of OWNER, testing agencies and governmental agencies with jurisdictional interests will have access to the Work at reasonable times for their observation, inspecting and testing. CONTRACTOR shall provide proper and safe conditions for such access.

## 12.3 Tests and Inspections

### 12.3.1 Timely Notice

CONTRACTOR shall give CONSULTANT timely notice of readiness of the Work for all required inspections, tests or approvals.

### 12.3.2 Requirements and Responsibilities

The CONSULTANT may require such inspection and testing during the course of the Work as he/she deems necessary to ascertain and assure the integrity and acceptable quality of the materials incorporated and the work performed. Inspection presence may be either full-time or intermittent, and neither the presence nor absence at any time of the CONSULTANT or the INSPECTOR shall relieve the CONTRACTOR of sole responsibility for the acceptability and integrity of the Work or any part thereof.

The costs of sampling, testing, and inspection on-site to ascertain acceptability of the Work and materials will be borne by the OWNER except as otherwise provided. The OWNER will select a testing laboratory to perform such sampling and testing. Sampling and/or testing required by the CONTRACTOR or necessitated by failure of Work or materials to meet the above acceptability test shall be at the expense of the CONTRACTOR.

Inspection services may be performed by the employees of the OWNER or by others selected or designated by the OWNER or the CONSULTANT.

Sampling and/or testing required for manufacturing quality and/or process control, for certification that raw mineral materials or manufactured products are the quality specified in the contract, or to assure the acceptability for incorporation into the Work shall be borne by the CONTRACTOR or the material supplier.

Cost for inspection, sampling, testing, and approvals required by the laws or regulations of any public body having competent jurisdiction shall be borne by the CONTRACTOR or the material supplier.

Sampling and testing will be in accord with pertinent codes and regulations and with appropriate standards of the American Society of Testing Materials or other specified standards.

### 12.3.3 On-Site Construction Test and Other Testing

All inspections, tests or approvals other than those required by Laws or Regulations of any public body having jurisdiction shall be performed by organizations acceptable to OWNER and CONTRACTOR (or by CONSULTANT if so specified).

#### 12.3.4 Covered Work

If any Work (including the work of others) that is to be inspected, tested or approved is covered without written concurrence of CONSULTANT, it must, if requested by CONSULTANT, be uncovered for observation. Such uncovering shall be at CONTRACTOR'S expense unless CONTRACTOR has given CONSULTANT timely notice of CONTRACTOR'S intention to cover the same and CONSULTANT has not acted with reasonable promptness in response to such notice.

#### 12.3.5 CONTRACTOR'S Obligation

Neither observations by CONSULTANT nor inspections, tests or approvals by others shall relieve CONTRACTOR from CONTRACTOR'S obligations to perform the Work in accordance with the Contract Documents.

#### **12.4 OWNER May Stop the Work**

If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workers or suitable materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will conform to the Contract Documents, OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of OWNER to stop the Work shall not give rise to any duty on the part of OWNER to exercise this right for the benefit of CONTRACTOR or any other party.

#### **12.5 Correction or Removal of Defective Work**

If required by CONSULTANT, CONTRACTOR shall promptly, as directed, either correct all defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by CONSULTANT, remove it from the site and replace it with non-defective Work. CONTRACTOR shall bear all direct, indirect and consequential costs of such correction or removal (including but not limited to fees and charges of engineers, architects, attorneys and other professionals) made necessary thereby.

#### **12.6 One Year Correction Period**

If within one year after the date of Completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work is found to be defective, CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER'S written instructions, either correct such defective Work, or, if it has been rejected by OWNER, remove it from the site and replace it with non-defective Work. If CONTRACTOR does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, OWNER may have the defective Work corrected or the rejected Work removed and replaced, and all direct, indirect and consequential costs of such removal and replacement

(including but not limited to fees and charges of engineers, architects, attorneys and other professionals) will be paid by CONTRACTOR. In special circumstances where a particular item of equipment is placed in continuous service before Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications or by Change Order.

**12.7 Acceptance of Defective Work**

If, instead of requiring correction or removal and replacement of defective Work, OWNER prefers to accept it, OWNER may do so. CONTRACTOR shall bear all direct, indirect and consequential costs attributable to OWNER'S evaluation of and determination to accept such defective Work (such costs to be approved by CONSULTANT as to reasonableness and to include but not be limited to fees and charges of engineers, architects, attorneys and other professionals).

**12.8 OWNER May Correct Defective Work**

If CONTRACTOR fails within a reasonable time after written notice of CONSULTANT to proceed to correct and to correct defective Work or to remove and replace rejected Work as required by CONSULTANT in accordance with paragraph 12.5, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if CONTRACTOR fails to comply with any other provision of the Contract Documents, OWNER may, after seven days' written notice to CONTRACTOR, correct and remedy any such deficiency. In exercising the rights and remedies under this paragraph OWNER shall proceed expeditiously. To the extent necessary to complete corrective and remedial action, OWNER may exclude CONTRACTOR from all or part of the site, take possession of all or part of the Work, and suspend CONTRACTOR'S services related thereto, take possession of CONTRACTOR'S tools, appliances, construction equipment and machinery at the site and incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow OWNER, OWNER'S representatives, agents and employees such access to the site as may be necessary to enable OWNER to exercise the rights and remedies under this paragraph. All direct, indirect and consequential costs of OWNER in exercising such rights and remedies will be charged against CONTRACTOR in an amount approved as to reasonableness by CONSULTANT, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price. Such direct, indirect and consequential costs will include but not be limited to fees and charges of engineers, architects, attorneys and other professionals, all court costs and all costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of CONTRACTOR'S defective Work. CONTRACTOR shall not be allowed an extension of the Contract Time because of any delay in performance of the Work attributable to the exercise by OWNER of OWNER'S rights and remedies hereunder.

### **13. PAYMENTS TO CONTRACTOR AND COMPLETION**

#### **13.1 Schedule of Values**

The schedule of values established as provided in paragraph 2.8 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to CONSULTANT. Progress payments on account of Unit Price Work will be based on the number of units completed.

#### **13.2 Application for Progress Payment**

At least ten days before each progress payment is scheduled (but not more often than once a month), CONTRACTOR shall submit to CONSULTANT for review an Application for Payment filled out and signed by CONTRACTOR covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice or other documentation warranting that OWNER has received the materials and equipment free and clear of all liens, charges, security interests and encumbrances (which are hereinafter in these General Conditions referred to as "Liens") and evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect OWNER'S interest therein, all of which will be satisfactory to OWNER. OWNER shall, within thirty (30) calendar days of presentation to him of an approved Application for Payment, pay CONTRACTOR the amount approved by CONSULTANT. Monthly progress payments shall be ninety (90) percent of the sum obtained by applying the respective bid unit prices to the approved estimated quantities of work completed by the Contractor during the preceding month. The remaining ten (10) percent will be held by the Owner, as retainage. At such time as the CONSULTANT deems appropriate - based on the quality of work performed, progress of cleanup, and other pertinent factors - the rate of retainage, or the total amount retained, may be reduced; although, any reduction in retainage, below the ten (10) percent level, is made solely at the CONSULTANT's discretion. All remaining retainage held will be included in the final payment to the Contractor.

##### **13.2.1 Waivers of Mechanic's Lien**

With each Application for Payment OWNER may require CONTRACTOR to submit waivers of mechanic's lien from entities lawfully entitled to file a mechanic's lien arising out of the Contract and related to the Work covered by the payment.

13.2.1.1 Requirement for waivers of Mechanic's Lien on Partial Applications for Payment will be determined and communicated at the Preconstruction Conference.

13.2.1.2 Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.

13.2.1.3 When an application shows completion of an item, submit conditional final or full waivers.

13.2.1.4 Owner reserves the right to designate which entities involved in the Work must submit waivers.

13.2.1.5 Waiver Forms: Submit executed waivers of lien on forms acceptable to Owner.

### **13.3 CONTRACTOR'S Warranty of Title**

CONTRACTOR warrants and guarantees that title to all Work, materials and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to OWNER no later than the time of payment free and clear of all Liens.

### **13.4 Review of Applications for Progress Payment**

#### **13.4.1 Submission of Application for Payment**

CONSULTANT will, after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to OWNER, or return the Application to CONTRACTOR indicating in writing CONSULTANT'S reasons for refusing to recommend payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the Application.

#### **13.4.2 CONSULTANT'S Recommendation**

CONSULTANT may refuse to recommend the whole or any part of any payment, if, in CONSULTANT'S opinion, it would be incorrect to make such representations to OWNER. CONSULTANT may also refuse to recommend any such payment, or, because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify any such payment previously recommended, to such extent as may be necessary in CONSULTANT'S opinion to protect OWNER from loss because:



13.4.2.1 the Work is defective, or completed Work has been damaged requiring correction or replacement;

13.4.2.2 the Contract Price has been reduced by Written Amendment or Change Order;

13.4.2.3 OWNER has been required to correct defective Work or complete Work in accordance with paragraph 12.8; or

13.4.2.4 of CONSULTANT's actual knowledge of the occurrence of any of the events enumerated in paragraphs 14.2.1 through 14.2.9 inclusive.

### **13.5 Partial Utilization**

OWNER at any time may request CONTRACTOR in writing to permit OWNER to use any such part of the Work which OWNER believes to be ready for its intended use and has been completed. If CONTRACTOR agrees, CONTRACTOR will certify to OWNER that said part of the Work is complete and request that a Certificate of Completion be issued for that part of the Work.

### **13.6 Final Inspection**

Upon written notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete, CONSULTANT will make a final inspection with CONTRACTOR and will notify CONTRACTOR in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. CONTRACTOR shall immediately take such measures as are necessary to remedy such deficiencies.

### **13.7 Final Application for Payment**

After CONTRACTOR has completed all such corrections to the satisfaction of CONSULTANT and delivered all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, marked-up record documents (as provided in paragraph 5.14) and other documents - all as required by the Contract Documents, and after CONSULTANT has indicated that the Work is acceptable (subject to the provisions of paragraph 13.10), CONTRACTOR may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied by all documentation called for in the Contract Documents, together with complete and legally effective releases or waivers (satisfactory to OWNER) of all Liens arising out of or filed in connection with the Work. In lieu thereof and as approved by OWNER, CONTRACTOR may furnish receipts or releases in full; an affidavit of CONTRACTOR that the releases and receipts include all labor, services, material and equipment for which a Lien could be filed, and that all payrolls, material and equipment bills, and other indebtedness connected with the Work for which OWNER or OWNER'S property might in any way be responsible, have been paid or otherwise satisfied; and consent of the surety, if any, to final payment. If any Subcontractor or Supplier fails to

furnish a release or receipt in full, CONTRACTOR may furnish a Bond or other collateral satisfactory to OWNER to indemnify OWNER against any Lien.

### **13.8 Final Payment and Acceptance**

#### **13.8.1 CONSULTANT'S Approval**

If, on the basis of CONSULTANT'S observation of the Work during construction and final inspection, and CONSULTANT'S review of the final Application for Payment and accompanying documentation - all as required by the Contract Documents, CONSULTANT is satisfied that the Work has been completed and CONTRACTOR'S other obligations under the Contract Documents have been fulfilled, CONSULTANT will, after receipt of the final Application for Payment, indicate in writing CONSULTANT'S recommendation of payment and present the Application to OWNER for payment. Thereupon CONSULTANT will give written notice to OWNER and CONTRACTOR that the Work is acceptable, subject to the provisions of paragraph 13.10. Otherwise, CONSULTANT will return the Application to CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the Application.

#### **13.8.2 Delay in Completion of Work**

If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed, OWNER shall, upon receipt of CONTRACTOR'S final Application for Payment and recommendation of CONSULTANT, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by OWNER for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required in paragraph 10 of Part II, Information for Bidders, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by CONTRACTOR to CONSULTANT with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

#### **13.8.3 Retainage**

**Retainage is not applicable to this project.**

### **13.9 CONTRACTOR'S Continuing Obligation**

CONTRACTOR'S obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. Neither recommendation of any progress or final payment by CONSULTANT, nor the issuance of a certificate of Completion, nor any payment by OWNER to CONTRACTOR under the Contract Documents, nor any use or occupancy of the Work or any part thereof by OWNER, nor any act of acceptance by OWNER nor any failure to do so, nor any review and

approval of a Shop Drawing or sample submission, nor any correction of defective Work by OWNER will constitute an acceptance of Work not in accordance with the Contract Documents or a release of CONTRACTOR'S obligation to perform the Work in accordance with the Contract Documents (except as provided in paragraph 13.10).

**13.10 Waiver of Claims**

The making and acceptance of final payment will constitute:

**13.10.1** a waiver of all claims by OWNER against CONTRACTOR, except claims arising from unsettled Liens, from defective Work appearing after final inspection or from failure to comply with the Contract Documents or the terms of any special guarantees specified therein; however, it will not constitute a waiver by OWNER of any rights in respect of CONTRACTOR'S continuing obligations under the Contract Documents; and

**13.10.2** a waiver of all claims by CONTRACTOR against OWNER other than those previously made in writing and still unsettled.

**14. SUSPENSION OF WORK AND TERMINATION**

**14.1 OWNER May Suspend Work**

OWNER may, at any time and without cause, suspend the Work or any portion thereof for a period of not more than ninety days by notice in writing to CONTRACTOR and CONSULTANT which will fix the date on which Work will be resumed. CONTRACTOR shall resume the Work on the date so fixed. CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension if CONTRACTOR makes an approved claim therefor as provided in Articles 10 and 11.

**14.2 OWNER May Terminate**

The OWNER may terminate the Work upon the occurrence of any one or more of the following events:

**14.2.1** if CONTRACTOR commences a voluntary case under any chapter of the Bankruptcy Code (Title 11, United States Code), as now or hereafter in effect, or if CONTRACTOR takes any equivalent or similar action by filing a petition or otherwise under any other federal or state law in effect at such time relating to the bankruptcy or insolvency;

**14.2.2** if a petition is filed against CONTRACTOR under any chapter of the Bankruptcy Code as now or hereafter in effect at the time of filing, or if a petition is filed seeking any such equivalent or similar relief against

CONTRACTOR under any other federal or state law in effect at the time relating to bankruptcy or insolvency;

**14.2.3** if CONTRACTOR makes a general assignment for the benefit of creditors;

**14.2.4** if a trustee, receiver, custodian or agent of CONTRACTOR is appointed under applicable law or under contract, whose appointment or authority to take charge of property of CONTRACTOR is for the purpose of enforcing a Lien against such property or for the purpose of general administration of such property for the benefit of CONTRACTOR'S creditors;

**14.2.5** if CONTRACTOR admits in writing an inability to pay its debts generally as they become due;

**14.2.6** if CONTRACTOR persistently fails to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule established under paragraph 2.8 as revised from time to time);

**14.2.7** if CONTRACTOR disregards Laws or Regulations of any public body having jurisdiction;

**14.2.8** if CONTRACTOR disregards the authority of CONSULTANT, or

**14.2.9** if CONTRACTOR otherwise violates in any substantial way any provisions of the Contract Documents;

OWNER may, after giving CONTRACTOR (and the surety) seven days' written notice and to the extent permitted by Laws and Regulations, terminate the services of CONTRACTOR, exclude CONTRACTOR from the site and take possession of the Work and of all CONTRACTOR'S tools, appliances, construction equipment and machinery at the site and use the same to the full extent they could be used by CONTRACTOR (without liability to CONTRACTOR for trespass or conversion), incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the Work as OWNER may deem expedient. In such case CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds the direct, indirect and consequential costs of completing the Work (including but not limited to fees and charges of engineers, architects, attorneys and other professionals and court and arbitration costs) such excess will be paid to CONTRACTOR. If such costs exceed such unpaid balance, CONTRACTOR shall pay the

difference to OWNER. Such costs incurred by OWNER will be approved as to reasonableness by CONSULTANT and incorporated in a Change Order, but when exercising any rights or remedies under this paragraph OWNER shall not be required to obtain the lowest price for the Work performed.

**14.2.10** If safety violations are observed and brought to the Contractors attention and Contractor fails to take immediate corrective measures any repeat of similar safety violations, Owner will order an immediate termination of contract. Note: it is the Contractor's responsibility to know proper safety measures as they pertain to construction and OSHA.

**14.2.11** This contract may be canceled by either party thirty (30) days after delivery by canceling party of written notice of intent to cancel to the other contracting party.

**14.2.12** This contract may be canceled by the Lexington-Fayette Urban County Government if it is determined that the Bidder has failed to perform under the terms of this agreement, such cancellation to be effective upon receipt of written notice of cancellation by the Bidder.

**14.3 CONTRACTOR'S Services Terminated**

Where CONTRACTOR'S services have been so terminated by OWNER, the termination will not affect any rights or remedies of OWNER against CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of moneys due CONTRACTOR by OWNER will not release CONTRACTOR from liability.

**14.4 Payment After Termination**

Upon seven days' written notice to CONTRACTOR, OWNER may, without cause and without prejudice to any other right or remedy, elect to abandon the Work and terminate the Agreement. In such case, CONTRACTOR shall be paid for all Work executed and any expense sustained plus reasonable termination expenses, which will include, but not be limited to, direct, indirect and consequential costs (including, but not limited to, fees and charges of engineers, architects, attorneys and other professionals and court and arbitration costs).

**14.5 CONTRACTOR May Stop Work or Terminate**

If, through no act or fault of CONTRACTOR, the Work is suspended for a period of more than ninety days by OWNER or under an order of court or other public authority, or CONSULTANT fails to act on any Application for Payment within sixty days after it is submitted, or OWNER fails for sixty days to pay CONTRACTOR any sum finally determined to be due, then CONTRACTOR may, upon seven days' written notice to OWNER and CONSULTANT, terminate the Agreement and recover from OWNER payment for all Work executed and any expense sustained plus reasonable termination expenses. In addition and in lieu of terminating the Agreement, if CONSULTANT has failed to act on an Application

for Payment or OWNER has failed to make any payment as aforesaid, CONTRACTOR may upon seven days' written notice to OWNER and CONSULTANT stop the Work until payment of all amounts then due. The provisions of this paragraph shall not relieve CONTRACTOR of the obligations under paragraph 5.16 to carry on the Work in accordance with the progress schedule and without delay during disputes and disagreements with OWNER.

**15. MISCELLANEOUS**

**15.1 Claims for Injury or Damage**

Should OWNER or CONTRACTOR suffer injury or damage to person or property because of any error, omission or act of the other party or of any of the other party's employees or agents or others for whose acts the other party is legally liable, claim will be made in writing to the other party within a reasonable time of the first observance of such injury or damage. The provisions of this paragraph 15.1 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or repose.

**15.2 Non-Discrimination in Employment**

The CONTRACTOR shall comply with the following requirements prohibiting discrimination:

**15.2.1** That no person (as defined in KRS 344.010) shall bid on Lexington-Fayette Urban County Government construction projects, or bid to furnish materials or supplies to the Lexington-Fayette Urban County Government, if, within six months prior to the time of opening of bids, said person shall have been found, by declaratory judgment action in Fayette Circuit Court, to be presently engaging in an unlawful practice, as hereinafter defined. Such declaratory judgment action may be brought by an aggrieved individual or upon an allegation that an effort at conciliation pursuant to KRS 344.200 has been attempted and failed, by the Lexington-Fayette County Human Rights Commission.

**15.2.2** That it is an unlawful practice for an employer:

**15.2.2.1** to fail or refuse to hire, or to discharge any individual or otherwise to discriminate against an individual, with respect to his compensation, terms, conditions, or privileges of employment, because of such individual's race, color, religion, sex, age, or national origin; or

**15.2.2.2** to limit, segregate or classify his employees in any way which would deprive or tend to deprive an individual of employment opportunities or otherwise adversely affect his status as an employee because of such individual's sex, race, color, religion, age, or national origin.

**15.2.3** That it is an unlawful practice for an employer, labor organization, or joint-labor management committee controlling apprenticeship or other training or retraining, including on-the-job training programs to discriminate against an individual because of his race, color, religion, sex, age, or national origin in admission to, or employment in, any program established to provide apprenticeship or other training.

**15.2.4** That a copy of this Ordinance shall be furnished all suppliers and made a part of all bid specifications.

**15.2.5** This Ordinance shall take effect after it is signed, published and recorded, as required by law.

**15.3 Temporary Street Closing or Blockage**

The CONTRACTOR will notify the CONSULTANT at least 72 hours prior to making any temporary street closing or blockage. This will permit orderly notification to all concerned public agencies. Specific details and restrictions on street closure or blockage are contained in the Special Conditions.

**15.4 Percentage of Work Performed by prime CONTRACTOR**

The CONTRACTOR shall perform on site, and with its own organization, Work equivalent to at least fifty (50%) percent of the total amount of Work to be performed under the Contract. This percentage may be reduced by a supplemental agreement to this Contract if, during performing the Work, the CONTRACTOR requests a reduction and the CONSULTANT determines that the reduction would be to the advantage of the OWNER.

**15.5 Clean-up**

Cleanup shall progress, to the greatest degree practicable, throughout the course of the Work. The Work will not be considered as completed, and final payment will not be made, until the right-of-way and all ground occupied or affected by the Contractor in connection with the Work has been cleared of all rubbish, equipment,

excess materials, temporary structures, and weeds. Rubbish and all waste materials of whatever nature shall be disposed of, off of the project site, in an acceptable manner. All property, both public and private, which has been damaged in the prosecution of the Work, shall be restored in an acceptable manner. All areas shall be draining, and all drainage ways shall be left unobstructed, and in such a condition that drift will not collect or scour be induced.

**15.6 General**

The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto, and, in particular but without limitation, the warranties, guarantees and obligations imposed upon CONTRACTOR by paragraphs 12.1, 12.3.5, 13.3, and 15.2 and all of the rights and remedies available to OWNER and CONSULTANT thereunder, are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee or by other provisions of the Contract Documents, and the provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right and remedy to which they apply. All representations, warranties and guarantees made in the Contract Documents will survive final payment and termination or completion of the Agreement.

**15.7 Debris Disposal**

For all LFUCG projects any trash, construction demolition debris, yard waste, dirt or debris of any kind that is removed from the project site must be disposed of in accordance with local, state, and federal regulations. The disposal site or facility must be approved in advance by the LFUCG and disposal documentation is required. The Contractor will be responsible for payment of any fines associated with improper disposal of material removed from the project site.

END OF SECTION



**PART V**  
**SPECIAL CONDITIONS**  
**INDEX**

- 1 BLASTING
- 2 RISK MANAGEMENT PROVISIONS –  
INSURANCE AND INDEMNIFICATION
- 3 WAGE SCALE (if applicable)
- 4 WEATHER RELATED DELAYS

1. **BLASTING** – not applicable.

**2. RISK MANAGEMENT PROVISIONS**  
**INSURANCE AND INDEMNIFICATION**

**INDEMNIFICATION AND HOLD HARMLESS PROVISION**

(1) It is understood and agreed by the parties that Contractor hereby assumes the entire responsibility and liability for any and all damages to persons or property caused by or resulting from or arising out of any act or omission on the part of Contractor or its employees, agents, servants, owners, principals, licensees, assigns or subcontractors of any tier (hereinafter "CONTRACTOR") under or in connection with this agreement and/or the provision of goods or services and the performance or failure to perform any work required thereby.

(2) CONTRACTOR shall indemnify, save, hold harmless and defend the Lexington-Fayette Urban County Government and its elected and appointed officials, employees, agents, volunteers, and successors in interest (hereinafter "LFUCG") from and against all liability, damages, and losses, including but not limited to, demands, claims, obligations, causes of action, judgments, penalties, fines, liens, costs, expenses, interest, defense costs and reasonable attorney's fees that are in any way incidental to or connected with, or that arise or are alleged to have arisen, directly or indirectly, from or by CONTRACTOR's performance or breach of the agreement and/or the provision of goods or services provided that: (a) it is attributable to personal injury, bodily injury, sickness, or death, or to injury to or destruction of property (including the loss of use resulting therefrom), or to or from the negligent acts, errors or omissions or willful misconduct of the CONTRACTOR; and (b) not caused solely by the active negligence or willful misconduct of LFUCG.

(3) In the event LFUCG is alleged to be liable based upon the above, CONTRACTOR shall defend such allegations and shall bear all costs, fees and expenses of such defense, including but not limited to, all reasonable attorneys' fees and expenses, court costs, and expert witness fees and expenses, using attorneys approved in writing by LFUCG, which approval shall not be unreasonably withheld.

(4) These provisions shall in no way be limited by any financial responsibility or insurance requirements, and shall survive the termination of this agreement.

(5) LFUCG is a political subdivision of the Commonwealth of Kentucky. CONTRACTOR acknowledges and agrees that LFUCG is unable to provide indemnity or otherwise save, hold harmless, or defend the CONTRACTOR in any manner.

**FINANCIAL RESPONSIBILITY**

BIDDER/CONTRACTOR understands and agrees that it shall, prior to final acceptance of its bid and the commencement of any work, demonstrate the ability to assure compliance with the above Indemnity provisions and these other risk management provisions.

**INSURANCE REQUIREMENTS**

YOUR ATTENTION IS DIRECTED TO THE INSURANCE REQUIREMENTS BELOW, AAND YOU MAY NEED TO CONFER WITH YOUR INSURANCE AGENTS, BROKERS, OR CARRIERS TO DETERMINE IN ADVANCE OF SUBMISSION OF A RESPONSE THE AVAILABILITY OF THE INSURANCE COVERAGES AND ENDORSEMENTS REQUIRED HEREIN. IF YOU FAIL TO COMPLY WITH THE INSURANCE REQUIREMENTS BELOW, YOU MAY BE DISQUALIFIED FROM AWARD OF THE CONTRACT.

**Required Insurance Coverage**

BIDDER/CONTRACTOR shall procure and maintain for the duration of this contract the following or equivalent insurance policies at no less than the limits shown below and cause its subcontractors to maintain similar insurance with limits acceptable to LFUCG in order to protect LFUCG against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by CONTRACTOR. The cost of such insurance shall be included in any bid:

<b><u>Coverage</u></b>	<b><u>Limits</u></b>
General Liability aggregate (Insurance Services Office Form CG 00 01)	\$1 million per occurrence, \$2 million or \$2 million combined single limit
Commercial Automobile Liability occurrence (Insurance Services Office Form CA 0001)	combined single, \$1 million per
Worker's Compensation	Statutory
Employer's Liability	\$100,000.00
Excess/Umbrella Liability	\$5 million per occurrence

The policies above shall contain the following conditions:

- a. All Certificates of Insurance forms used by the insurance carrier shall be properly filed and approved by the Department of Insurance for the Commonwealth of Kentucky (DOI). LFUCG shall be named as an additional insured in the General Liability Policy and Commercial Automobile Liability Policy using the Kentucky DOI approved forms.
- b. The General Liability Policy shall be primary to any insurance or self-insurance retained by LFUCG.

c. The General Liability Policy shall include a Products and Completed Operations endorsement or Premises and Operations Liability endorsement unless it is deemed not to apply by LFUCG.

d. LFUCG shall be provided at least 30 days advance written notice via certified mail, return receipt requested, in the event any of the required policies are canceled or non-renewed.

e. Said coverage shall be written by insurers acceptable to LFUCG and shall be in a form acceptable to LFUCG. Insurance placed with insurers with a rating classification of no less than Excellent (A or A-) and a financial size category of no less than VIII, as defined by the most current Best's Key Rating Guide shall be deemed automatically acceptable.

#### Renewals

After insurance has been approved by LFUCG, evidence of renewal of an expiring policy must be submitted to LFUCG, and may be submitted on a manually signed renewal endorsement form. If the policy or carrier has changed, however, new evidence of coverage must be submitted in accordance with these Insurance Requirements.

#### Deductibles and Self-Insured Programs

IF YOU INTEND TO SUBMIT A SELF-INSURANCE PLAN IT MUST BE FORWARDED TO LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, DIVISION OF RISK MANAGEMENT, 200 EAST MAIN STREET, LEXINGTON, KENTUCKY 40507 NO LATER THAN A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO THE RESPONSE DATE. Self-insurance programs, deductibles, and self-insured retentions in insurance policies are subject to separate approval by Lexington-Fayette Urban County Government's Division of Risk Management, upon review of evidence of BIDDER/CONTRACTOR's financial capacity to respond to claims. Any such programs or retentions must provide LFUCG with at least the same protection from liability and defense of suits as would be afforded by first-dollar insurance coverage. If BIDDER/CONTRACTOR satisfies any portion of the insurance requirements through deductibles, self-insurance programs, or self-insured retentions, BIDDER/CONTRACTOR agrees to provide Lexington-Fayette Urban County Government, Division of Risk Management, the following data prior to the final acceptance of bid and the commencement of any work:

- a. Latest audited financial statement, including auditor's notes.
- b. Any records of any self-insured trust fund plan or policy and related accounting statements.
- c. Actuarial funding reports or retained losses.

- d. Risk Management Manual or a description of the self-insurance and risk management program.
- e. A claim loss run summary for the previous five (5) years.
- f. Self-Insured Associations will be considered.

#### Safety and Loss Control

CONTRACTOR shall comply with all applicable federal, state, and local safety standards related to the performance of its works or services under this Agreement and take necessary action to protect the life, health and safety and property of all of its personnel on the job site, the public, and LFUCG.

#### Verification of Coverage

BIDDER/CONTRACTOR agrees to furnish LFUCG with all applicable Certificates of Insurance signed by a person authorized by the insurer to bind coverage on its behalf prior to final award, and if requested, shall provide LFUCG copies of all insurance policies, including all endorsements.

#### Right to Review, Audit and Inspect

CONTRACTOR understands and agrees that LFUCG may review, audit and inspect any and all of its records and operations to insure compliance with these Insurance Requirements.

#### DEFAULT

BIDDER/CONTRACTOR understands and agrees that the failure to comply with any of these insurance, safety, or loss control provisions shall constitute default and that LFUCG may elect at its option any single remedy or penalty or any combination of remedies and penalties, as available, including but not limited to purchasing insurance and charging BIDDER/CONTRACTOR for any such insurance premiums purchased, or suspending or terminating the work.

00357187

3. **WAGE SCALES** – not applicable.

4. **WEATHER RELATED DELAYS**

- A. The Project Completion date shall be established with the understanding that no extension of time will be granted for weather related delays that are within the average temperature or number of rain or snow days within a particular month. The average weather conditions shall be established by referencing the records of the National Oceanic and Atmospheric Administration (NOAA) and as defined herein.
- B. Extensions of inclement weather shall be granted only when the work affected must be on schedule at the time of delay. No time will be granted for work which is behind schedule in excess of the actual delay caused by the weather, assuming the work had been on schedule.
- C. Time granted for weather delays shall be requested on a monthly basis.
- D. The weather experienced at the project site during the contract period must be found to be unusually severe, that is more severe than the adverse weather anticipated for the project location during any given month. The unusually severe weather must actually cause a delay to the completion of the project. The delay must be beyond the control and without the fault or negligence of the contractor.
- E. The anticipated adverse weather delays shall be based on the National Oceanic and Atmospheric Administration (NOAA) climatology ten year average for the Lexington Bluegrass Airport KY US location. The Mean Number of Days of daily precipitation using  $\geq 0.10$  will determine the base line for monthly anticipated adverse weather evaluations. The contractor's progress schedule must reflect these anticipated adverse weather delays in all weather dependent activities. Upon acknowledgement of the Notice to Proceed (NTP) and continuing throughout the contract, the contractor will record the occurrence of actual adverse weather and resultant impact to normally scheduled work. Actual adverse weather delay days must prevent work on critical path activities for 50 percent or more of the contractor's scheduled work date. The number of actual adverse weather delay days shall be calculated chronologically from the first to the last day of each month, and be recorded as full days. The number of actual adverse weather days greater than the number of anticipated adverse weather days, listed above, shall be the number of unusually severe weather days for the purposes of any contract extensions (actual adverse weather days - anticipated adverse weather days = unusually severe weather days.)
- F. Definitions:

1. "Unusually severe weather" - weather that is more severe than the adverse weather anticipated for the season or location involved.
2. "Adverse weather" - atmospheric conditions at a definite time and place that are unfavorable to construction activities.

END OF SECTION



**PART VI**

**CONTRACT AGREEMENT**

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**PART VI**

**CONTRACT AGREEMENT**

THIS AGREEMENT, made on the 20<sup>TH</sup> day of FEBRUARY, 2020, by and between **Lexington-Fayette Urban County Government**, acting herein called "OWNER" and **AE Electrical Solutions**, doing business as a corporation located in the City of Frankfort, County of Franklin, and State of Kentucky, hereinafter called "CONTRACTOR."

WITNESSETH: That the CONTRACTOR and the OWNER in consideration of one hundred seven thousand five hundred sixty four Dollars and No Cents (\$107,564.00) quoted in the proposal by the CONTRACTOR, dated January 17, 2020, hereby agree to commence and complete the construction described as follows:

**1. SCOPE OF WORK**

The CONTRACTOR shall furnish all the materials, supplies, machinery, equipment, tools, superintendence, labor, insurance, and other accessories and services necessary to complete the said project in accordance with the conditions and prices stated in the Proposal, the General Conditions, and the Special Conditions of the Contract, the Specifications and Contract Documents therefore as prepared by Staggs & Fisher Consulting Engineers Inc for the Installation of Electric Service at the Material Recovery Facility project.

**2. TIME OF COMPLETION**

The time period estimated and authorized by the OWNER for the proper execution of the Work by the Contract, in full, is hereby fixed as ninety (90) calendar days. The time shall begin in accordance with the Notice to Proceed provided by OWNER.

**3. ISSUANCE OF WORK ORDERS**

Notice to begin Work will be given in whole or for part of the Work as determined by the OWNER pending the availability of funds. The order of construction will be as determined by the Engineer after consultation with the CONTRACTOR and the OWNER.

**4. THE CONTRACT SUM**

The OWNER agrees to pay the CONTRACTOR in current funds for the performance of the Contract, as quoted in the proposal, subject to any additions and deductions, as provided therein.

**5. PROGRESS PAYMENTS**

The OWNER shall make payments on account of the Contract, as provided in accordance with the General Conditions, as estimated by the Engineer, less the aggregate of previous payments.

**6. ACCEPTANCE AND FINAL PAYMENT**

Final payment shall be due within ninety (90) days after completion of the Work, provided the Work be then fully completed and the Contract fully accepted.

Before issuance of final certificate, the CONTRACTOR shall submit evidence satisfactory to the Engineer that all payrolls, material bills, and other indebtedness connected with the Work has been paid.

If, after the Work has been substantially completed, full completion thereof is materially delayed through no fault of the CONTRACTOR, and the ENGINEER so certifies, the OWNER shall upon certificate of the ENGINEER, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

**7. THE CONTRACT DOCUMENTS**

The Advertisement for Bids, Information for Bidders, the General Conditions, Performance and Payment Bonds, Contract Agreement, Special Conditions, Technical Specifications, any and all Addenda, and Proposal, and Plan Drawings form the Contract, and they are fully a part of the Contract as if hereto attached or herein repeated.

**8. EXTRA WORK**

The OWNER, without invalidating the Contract, may order extra work or make changes by altering, adding to or deducting from the Work, the Contract Sum being adjusted accordingly. All such Work shall be executed and paid for in accordance with the General Conditions, which is a part of this Contract.

**9. THE FOLLOWING IS AN ENUMERATION OF THE SPECIFICATIONS AND DRAWINGS (CONTRACT DOCUMENTS):**

## SPECIFICATIONS

SECTION NO.	TITLE	PAGES
I	Advertisement for Bids	AB 1 thru 5
II	Information for Bidders	IB 1 thru 15
III	Form of Proposal	P 1 thru 29
IV	General Conditions	GC 1 thru 50
V	Special Conditions	SC 1 thru 8
VI	Contract Agreement	CA 1 thru 5
VII	Performance and Payment Bonds	PB 1 thru 7
VIII	Addenda	AD 1 thru 1
IX	Technical Specifications	

### **DIVISION 26 – ELECTRICAL**

26 0000 - General Electrical Provisions Section  
26 0500 - Common Work Results for Electrical  
26 0519 - Low Voltage Electrical Power Conductors and Cables  
26 0526 - Grounding and Bonding for Electrical Systems  
26 0529 - Hangers and Supports for Electrical Systems  
26 0533 - Raceway and Boxes for Electrical Systems  
26 0543 - Underground Ducts and Raceways for Electrical Systems  
26 0544 - Sleeves and Sleeve Seals for Electrical Raceways and Cabling  
26 0553 - Identification for Electrical Systems  
26 2416 - Panelboards  
26 2713 - Electricity Metering  
26 3526 - Active Harmonic Filters

### **PLAN DRAWINGS –**

E0  
E1  
E2

IN WITNESSETH WHEREOF, the parties hereto have executed this Contract as of the date and year above written.

(Seal)

Lexington-Fayette Urban County Government.  
Lexington, Kentucky

(Owner)

ATTEST:

*Deputy* Markenzie Semmes  
Clerk of the Urban County Council

BY: Linda Gorton  
MAYOR

Michelle Nelson  
(Witness)

Linda Gorton, Mayor  
(Title)

(Seal)

AE ELECTRICAL SOLUTIONS  
(Contractor)

[Signature]  
(Secretary)\* Controller

BY: [Signature]

[Signature]  
(Witness)

GENERAL MANAGER  
(Title)

210 COMMERCE BLVD FRAUKFON KY 40601  
(Address and Zip Code)

IMPORTANT: \*Strike out any non-applicable terms.

Secretary of the Owner should attest. If the CONTRACTOR is corporation, Secretary should attest. Give proper title of each person-executing Contract.

**PART VII**

**PERFORMANCE AND PAYMENT BONDS**

1. PERFORMANCE BOND
2. PAYMENT BOND



# AIA Document A312™ – 2010

Bond # 2478751

## Performance Bond

**CONTRACTOR:**

*(Name, legal status and address)*

AE Electrical Solutions

P.O. Box 524

Frankfort, KY 40602

**OWNER:**

*(Name, legal status and address)*

Lexington-Fayette Urban County Government

200 East Main St

Lexington, KY 40507

CONSTRUCTION CONTRACT

Date:

Amount: \$107,564.00

**SURETY:**

*(Name, legal status and principal place of business)*

Great American Insurance Company

301 E 4th Street

Cincinnati, OH 45202

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

AIA Document A312-2010 combines two separate bonds, a Performance Bond and a Payment Bond, into one form. This is not a single combined Performance and Payment Bond

Description: Bid #140-2019 Installation of Electric Service at Material Recovery Facility

*(Name and location)*

**BOND**

Date:

*(Not earlier than Construction Contract Date)*

Amount: \$107,564.00

Modifications to this Bond:  None  See Section 16

**CONTRACTOR AS PRINCIPAL**

AE Electrical Solutions

Company: (Corporate Seal)

And Title: By: John Lee

*(Any additional signatures appear on the last page of this Performance Bond)*

John Lee

General Manager

*(FOR INFORMATION ONLY— Name, address and telephone)*

AGENT or BROKER:

Van Meter Insurance Group

1240 Fairway St

Bowling Green, KY

(270)781-2020

**SURETY**

Great American Insurance Company

Company:

(Corporate Seal)

And Title: By: LaKala Carter

Attorney-in-Fact

LaKala Carter

OWNER'S REPRESENTATION:

(Architect, Engineer or other party:

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

§ 2 If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Section 3.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after

- .1 the Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Section 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;
- .2 the Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and
- .3 the Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

§ 4 Failure on the part of the Owner to comply with the notice requirement in Section 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

§ 5 When the Owner has satisfied the conditions of Section 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

§ 5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

§ 5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

§ 5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Section 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

§ 5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

- .1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or
- .2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

§ 6 If the Surety does not proceed as provided in Section 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Section 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.



§ 7 If the Surety elects to act under Section 5.1, 5.2 or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication, for

- 1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
- 2 additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Section 5; and
- 3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

§ 8 If the Surety elects to act under Section 5.1, 5.3 or 5.4, the Surety's liability is limited to the amount of this Bond.

§ 9 The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors and assigns.

§ 10 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 11 Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 12 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

§ 13 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

#### § 14 Definitions

§ 14.1 **Balance of the Contract Price.** The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

§ 14.2 **Construction Contract.** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

§ 14.3 **Contractor Default.** Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

§ 14.4 **Owner Default.** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 14.5 **Contract Documents.** All the documents that comprise the agreement between the Owner and Contractor.

§ 15 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor

§ 16 Modifications to this bond are as follows:

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)	
<b>CONTRACTOR AS PRINCIPAL</b>	<b>SURETY</b>
Company: _____ (Corporate Seal)	Company: _____ (Corporate Seal)
Signature: _____	Signature: _____
Name and Title: _____	Name and Title: _____
Address: _____	Address: _____
Caution: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will be not be obscured.	



# AIA Document A312™ – 2010

Bond # 2478751

## Payment Bond

**CONTRACTOR:**

(Name, legal status and address)

AE Electrical Solutions  
P.O. Box 524  
Frankfort, KY 40602

**OWNER:**

(Name, legal status and address)

Lexington-Fayette Urban County Government  
200 East Main St  
Lexington, KY 40507  
CONSTRUCTION CONTRACT

Date:

Amount: **\$107,564.00**

**SURETY:**

(Name, legal status and principal place of business)

Great American Insurance Company  
301 E 4th Street  
Cincinnati, OH 45202

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

AIA Document A312-2010 combines two separate bonds, a Performance Bond and a Payment Bond, into one form. This is not a single combined Performance and Payment Bond

Description: **Bid #140-2019 Installation of Electric Service at Material Recovery Facility**

(Name and location)

**BOND**

Date:

(Not earlier than Construction Contract Date)

Amount: **\$107,564.00**

Modifications to this Bond:  None  See Section 16

**CONTRACTOR AS PRINCIPAL**

AE Electrical Solutions  
Company:

(Corporate Seal)

And Title: By: John Lee

(Any additional signatures appear on the last page of this Performance Bond)

John Lee

General Manager

(FOR INFORMATION ONLY— Name, address and telephone)

**AGENT or BROKER:**

Van Meter Insurance Group  
1240 Fairway St  
Bowling Green, KY  
(270)781-2020

**SURETY**

Great American Insurance Company  
Company:

(Corporate Seal)

And Title: By: LaKala Carter

Attorney-in-Fact

LaKala Carter

**OWNER'S REPRESENTATION:**

(Architect, Engineer or other party):

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.

§ 2 If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies and holds harmless the Owner from claims, demands, liens or suits by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Section 13) of claims, demands, liens or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety.

§ 4 When the Owner has satisfied the conditions in Section 3, the Surety shall promptly and at the Surety's expense defend, indemnify and hold harmless the Owner against a duly tendered claim, demand, lien or suit.

§ 5 The Surety's obligations to a Claimant under this Bond shall arise after the following:

§ 5.1 Claimants, who do not have a direct contract with the Contractor,

- 1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
- 2 have sent a Claim to the Surety (at the address described in Section 13).

§ 5.2 Claimants, who are employed by or have a direct contract with the Contractor, have sent a Claim to the Surety (at the address described in Section 13).

§ 6 If a notice of non-payment required by Section 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Section 5.1.1.

§ 7 When a Claimant has satisfied the conditions of Sections 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:

§ 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and

§ 7.2 Pay or arrange for payment of any undisputed amounts.

§ 7.3 The Surety's failure to discharge its obligations under Section 7.1 or Section 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Section 7.1 or Section 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

§ 8 The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Section 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

§ 9 Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

§ 10 The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to, or give notice on behalf of, Claimants or otherwise have any obligations to Claimants under this Bond.

§ 11 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 12 No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Section 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 13 Notice and Claims to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

§ 14 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 15 Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

#### § 16 Definitions

§ 16.1 Claim. A written statement by the Claimant including at a minimum:

- 1 the name of the Claimant;
- 2 the name of the person for whom the labor was done, or materials or equipment furnished;
- 3 a copy of the agreement or purchase order pursuant to which labor, materials or equipment was furnished for use in the performance of the Construction Contract;
- 4 a brief description of the labor, materials or equipment furnished;
- 5 the date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
- 6 the total amount earned by the Claimant for labor, materials or equipment furnished as of the date of the Claim;
- 7 the total amount of previous payments received by the Claimant; and
- 8 the total amount due and unpaid to the Claimant for labor, materials or equipment furnished as of the date of the Claim.

§ 16.2 Claimant. An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

§ 16.3 Construction Contract. The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

§ 16.4 Owner Default. Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 16.5 Contract Documents. All the documents that comprise the agreement between the Owner and Contractor.

§ 17 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 18 Modifications to this bond are as follows:

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)	
<b>CONTRACTOR AS PRINCIPAL</b>	<b>SURETY</b>
Company: _____ (Corporate Seal)	Company: _____ (Corporate Seal)
Signature: _____	Signature: _____
Name and Title: _____	Name and Title: _____
Address: _____	Address: _____
Caution: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will be not be obscured.	
AIA Document A312™ — 2010, The American Institute of Architects	
8	

**GREAT AMERICAN INSURANCE COMPANY®**

Administrative Office: 301 E 4TH STREET • CINCINNATI, OHIO 45202 • 513-369-5000 • FAX 513-723-2740

The number of persons authorized by this power of attorney is not more than SEVEN

No. 0 20865

**POWER OF ATTORNEY**

**KNOW ALL MEN BY THESE PRESENTS:** That the GREAT AMERICAN INSURANCE COMPANY, a corporation organized and existing under and by virtue of the laws of the State of Ohio, does hereby nominate, constitute and appoint the person or persons named below, each individually if more than one is named, its true and lawful attorney-in-fact, for it and in its name, place and stead to execute on behalf of the said Company, as surety, any and all bonds, undertakings and contracts of suretyship, or other written obligations in the nature thereof; provided that the liability of the said Company on any such bond, undertaking or contract of suretyship executed under this authority shall not exceed the limit stated below.

Name	Address	Limit of Power
BRIAN L. SEWELL	KENNETH ALBERT	ALL
STEVEN M. BAAS	GERALD HEMING	\$100,000,000
MELISSA PROPST	BENJAMIN P. DYCUS	
LAKALA CARTER		

This Power of Attorney revokes all previous powers issued on behalf of the attorney(s)-in-fact named above.

IN WITNESS WHEREOF the GREAT AMERICAN INSURANCE COMPANY has caused these presents to be signed and attested by its appropriate officers and its corporate seal hereunto affixed this 17TH day of JANUARY 2020



*Stephen C. Beraha*

Assistant Secretary

GREAT AMERICAN INSURANCE COMPANY

*Mark V. Vicario*

Divisional Senior Vice President

STATE OF OHIO, COUNTY OF HAMILTON - ss:

MARK VICARIO (877-377-2405)

On this 17TH day of JANUARY 2020, before me personally appeared MARK VICARIO, to me known, being duly sworn, deposes and says that he resides in Cincinnati, Ohio, that he is a Divisional Senior Vice President of the Bond Division of Great American Insurance Company, the Company described in and which executed the above instrument; that he knows the seal of the said Company; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by authority of his office under the By-Laws of said Company, and that he signed his name thereto by like authority.



**Susan A. Kohorst**  
Notary Public, State of Ohio  
My Commission Expires 05-16-2020

*Susan A. Kohorst*

This Power of Attorney is granted by authority of the following resolutions adopted by the Board of Directors of Great American Insurance Company by unanimous written consent dated June 9, 2008.

*RESOLVED: That the Divisional President, the several Divisional Senior Vice Presidents, Divisional Vice Presidents and Divisional Assistant Vice Presidents, or any one of them, be and hereby is authorized, from time to time, to appoint one or more Attorneys-in-Fact to execute on behalf of the Company, as surety, any and all bonds, undertakings and contracts of suretyship, or other written obligations in the nature thereof; to prescribe their respective duties and the respective limits of their authority; and to revoke any such appointment at any time.*

*RESOLVED FURTHER: That the Company seal and the signature of any of the aforesaid officers and any Secretary or Assistant Secretary of the Company may be affixed by facsimile to any power of attorney or certificate of either given for the execution of any bond, undertaking, contract of suretyship, or other written obligation in the nature thereof, such signature and seal when so used being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed.*

**CERTIFICATION**

I, STEPHEN C. BERAHA, Assistant Secretary of Great American Insurance Company, do hereby certify that the foregoing Power of Attorney and the Resolutions of the Board of Directors of June 9, 2008 have not been revoked and are now in full force and effect.

Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_



*Stephen C. Beraha*

Assistant Secretary

**PART VII**

**PERFORMANCE BOND**

KNOW ALL MEN BY THESE PRESENTS, that

\_\_\_\_\_  
(Name of CONTRACTOR)

\_\_\_\_\_  
(Address of CONTRACTOR)

a \_\_\_\_\_, hereinafter  
(Corporation, Partnership, or Individual)

called Principal, and \_\_\_\_\_  
(Name of Surety)

\_\_\_\_\_  
(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT  
200 East Main Street, Third Floor  
Lexington, Kentucky 40507

hereinafter called "OWNER" in the penal sum of: \_\_\_\_\_  
Dollars, (\$ \_\_\_\_\_), for the payment of whereof Principal and Surety bind themselves, their heirs,  
executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal by written agreement is entering into a Contract with OWNER for  
\_\_\_\_\_ (project name) \_\_\_\_\_ in accordance with drawings and  
specifications prepared by: \_\_\_\_\_ (the Engineer) \_\_\_\_\_ which Contract is by reference  
made a part hereof, and is hereinafter referred to as the Contract.

NOW THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Principal shall  
promptly and faithfully perform said Contract, then this obligation shall be null and void; otherwise it shall  
remain in full force and effect.

The Surety hereby waives notice of any alteration or extension of time made by the OWNER.

Whenever, Principal shall be, and declared by OWNER to be in default under the Contract, the OWNER  
having performed OWNER'S obligations thereunder, the Surety may promptly remedy the default, or shall  
promptly:



- (1) Complete the Contract in accordance with its terms and conditions or
- (2) Obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsible bidder, or if the OWNER elects, upon determination by the OWNER and Surety jointly of the lowest responsible bidder, arrange for a Contract between such bidder and OWNER, and make available as Work progresses (even though there may be a default or a succession of defaults under the Contract or Contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the Contract Price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the Contract Price", as used in this paragraph shall mean the total amount payable by OWNER to Principal under the Contract and any amendments thereto, less the amount properly paid by OWNER to Principal.

Any suit under this bond must be instituted before the expiration of two (2) years from the date on which final payment under the Contract falls due.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the OWNER named herein or the heirs, executors, administrators or successors of OWNER.

IN WITNESS WHEREOF, this instrument is executed in \_\_\_\_\_ each one of which shall be  
(number)  
deemed an original, this the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

ATTEST:

\_\_\_\_\_  
(Principal) Secretary

\_\_\_\_\_  
Principal

BY: \_\_\_\_\_ (s)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
Witness as to Principal

\_\_\_\_\_  
(Address)

ATTEST:

\_\_\_\_\_  
(Surety) Secretary

\_\_\_\_\_  
Surety

BY: \_\_\_\_\_  
Attorney-in-Fact

\_\_\_\_\_  
(Address)

(SEAL)

\_\_\_\_\_  
Witness as to Surety

\_\_\_\_\_  
(Address)

TITLE: \_\_\_\_\_  
Surety

BY: \_\_\_\_\_

TITLE: \_\_\_\_\_

NOTE: The number of executed counterparts of the bond shall coincide with the number of executed counterparts of the Contract.

**PART VII**  
**PAYMENT BOND**

KNOW ALL MEN BY THESE PRESENT: that

\_\_\_\_\_ (Name of Contractor)

\_\_\_\_\_ (Address of Contractor)

a \_\_\_\_\_, hereinafter  
(Corporation, Partnership or Individual)

called Principal, and \_\_\_\_\_  
(Name of Surety)

\_\_\_\_\_ (Address of Surety)

hereinafter called Surety, are held and firmly bound unto:

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT  
200 East Main Street, Third Floor  
Lexington, Kentucky 40507

Obligee, hereinafter called OWNER, for the use and benefit of claimants as hereinafter defined, in the amount of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal by written agreement is entering into a Contract with OWNER for \_\_\_\_\_ (project name) in accordance with drawings and specifications prepared by: \_\_\_\_\_ (the Engineer) which Contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Principal shall promptly make payment to all claimants as hereinafter defined for all labor and material used or reasonably required for use in the performance of the Contract, then this obligation shall be void; otherwise it shall remain in full force and effect, subject, however, to the following conditions.

1. A claimant is defined as one having a direct contract with the Principal or with a Subcontractor of the Principal for labor, material, or both, used or reasonably required for use in the performance of the Contract, labor and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment directly applicable to the Contract.

2. The above named Principal and Surety hereby jointly and severally agree with the OWNER that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor was done or performed, or materials were furnished by such claimant, may sue on this bond for the use of such claimant, prosecute the suit to final judgment for such sum or sums as may be justly due claimant, and have execution thereon. The OWNER shall not be liable for the payment of any costs or expenses of any such suit.
  
3. No suit or action shall be commenced hereunder by any claimant:
  - (a) Unless claimant, other than one having a direct contract with the Principal, shall have given written notice to any two of the following: The Principal, the OWNER, or the Surety above named, within ninety (90) days after such claimant did or performed the last of the Work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the Work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the Principal, OWNER, or Surety, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the state in which the aforesaid project is located, save that such service need not be made by a public officer.
  - (b) After the expiration of one (1) year following the date on which Principal ceased Work on said Contract, it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.
  - (c) Other than in a state court of competent jurisdiction in and for the county or other political subdivision of the state in which the project, or any part thereof, is situated, or in the United States District Court for the district in which the project, or any part thereof, is situated, and not elsewhere.
  
4. The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of mechanics' liens which may be filed of record against aid improvement, whether or not claim for the amount of such lien be presented under and against this bond.

IN WITNESS WHEREOF, this instrument is executed in \_\_\_\_\_ counterparts, each one of  
(number)

which shall be deemed an original, this the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

ATTEST:

\_\_\_\_\_  
(Principal)

\_\_\_\_\_  
(Principal) Secretary

(SEAL)

BY: \_\_\_\_\_(s)

\_\_\_\_\_  
(Address)  
\_\_\_\_\_

\_\_\_\_\_  
(Witness to Principal)

\_\_\_\_\_  
(Address)  
\_\_\_\_\_

\_\_\_\_\_  
(Surety)

ATTEST:

BY: \_\_\_\_\_  
(Attorney-in-Fact)

\_\_\_\_\_  
(Surety) Secretary

(SEAL)

\_\_\_\_\_  
Witness as to Surety

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Address)  
\_\_\_\_\_

NOTE: The number of executed counterparts of the bond shall coincide with the number of executed counterparts of the Contract.

END OF SECTION

**PART VIII**

**ADDENDA**

All addenda issued during the bidding of the Project will be reproduced in the signed Contract Documents, on the pages following this heading sheet.

<u>Addendum Number</u>	<u>Title</u>	<u>Date</u>
1.	_____	_____
2.	_____	_____
3.	_____	_____
4.	_____	_____
5.	_____	_____

## **IX. TECHNICAL SPECIFICATIONS**

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DIVISION 26 – ELECTRICAL

SECTION 26 0000 – GENERAL ELECTRICAL PROVISIONS

PART 1 - GENERAL

1.1 GENERAL

- A. The General Conditions, Special Conditions, Supplemental Conditions, Instructions to Bidders, and other Contract Documents apply to this branch of the work as well as to the other branches.
- B. The Contractor shall familiarize himself with the work of all other trades, general type construction, and the relationship of his work to other sections. He shall examine all working drawings, specifications and conditions affecting his work. The Contractor shall visit the premises and thoroughly familiarize himself with all details of the work and working conditions, verify all dimensions in the field and advise the Engineer of any discrepancy before fabricating or performing any work.
- C. The work shall include complete testing of all equipment, conduit and wiring at the completion of the work and making any minor connection changes or adjustments necessary for the proper functioning of the system and equipment.
- D. Perform any necessary temporary work during construction.
- E. Work under this section shall conform to governing codes, ordinances and regulations of the City, County and State.
- F. The Contractor shall be responsible for any errors in fabrication, for the correct fitting, installation and erection of the various electrical systems.

1.2 SCOPE

- A. Furnish and install all wiring devices and equipment, etc., unless otherwise indicated, for the complete electrical systems. It is the intent that the entire electrical work and all electrical systems shall be complete in every respect and that all outlets, receptacles, fixtures, motors, equipment, devices, etc., shown, noted, or required shall be completely connected from source of power to final connection, ready for satisfactory operation.

1.3 ELECTRICAL MATERIALS

- A. It is the intent of these specifications that the conductive materials used in the manufacture of, but not limited to, the following types of equipment be of copper construction:
  - 1. Transformers (medium voltage and low voltage)
  - 2. Electrical Power Conductors and Cables (all voltages)
  - 3. Panelboards

1.4 PROTECTION

- A. All work, equipment and materials shall be protected at all times. All conduit openings shall be closed with caps or plugs during construction. All equipment and accessories shall be tightly covered and protected against dirt, water or other injury during the period of construction.

1.5 EQUIPMENT INSTALLATION INSTRUCTIONS

- A. Install electrical conduit, wiring and equipment in strict accordance with manufacturer's recommendations. Provide equipment accessories necessary for proper operation or recommended by the manufacturer, even if such accessories are not shown on the drawings or mentioned in the specifications.

1.6 INSTALLATION OF EQUIPMENT

- A. All appliances, materials and equipment shall be installed and connected in accordance with the best engineering practice and in accordance with manufacturers' instructions and recommendations. All electrical connections, etc., recommended by the manufacturer or required for proper operation shall be furnished and installed complete.

1.7 EQUIPMENT CONNECTIONS

- A. Make connections to equipment furnished by others whenever such equipment is shown on any part of the drawings or mentioned in any section of the specifications.
- B. Verify equipment locations and the sizes, number, locations, and types of connections to be made before installation of any such equipment.

1.8 OPENINGS

- A. The Contractor under this Division shall be responsible for the openings he may require in floors, walls or ceilings.

1.9 SINGULAR NUMBER

- A. In all cases where a device or piece of equipment is referred to in the singular number (such as a light fixture, etc.), it is intended that such reference shall apply to as many such items as are required to complete the installation.

1.10 CONNECTION TO EXISTING ELECTRICAL SYSTEMS

- A. The Contractor under this Division shall make all necessary electrical connections to all undisturbed existing electrical systems, as shown on the Drawings and/or required for their proper operation with the new system.

1.11 SPECIAL NOTE

- A. All openings in electrical equipment, enclosures, cabinets, outlet and junction boxes shall be by means of standard knockouts, or shall be sawed or drilled. The use of a cutting torch is prohibited.

1.12 EQUIPMENT IDENTIFICATION

- A. The Contractor for this Division shall furnish and install on all electrical equipment such as switches, starters, panelboards, etc., a nameplate giving its name and function.
- B. Nameplates shall be engraved bakelite (white letters on black background) and shall be equal to Seton Nameplate, C. H. Hanson or Identifications.

1.13 EQUIVALENT MATERIAL AND EQUIPMENT

- A. The material and equipment described herein have been specified according to particular trade names or makes; however, the Contractor may offer substitute material and equipment in lieu of that specified, provided such material and equipment meet all the requirements of those specified and are approved by the Architect /Engineer. The manufacturer's warranty covering each item of substituted material or equipment shall be equal to the warranty covering the material or equipment specified.
- B. Where equipment is approved which requires different arrangement of connections from those shown, it shall be the responsibility of the Contractor to install the equipment to operate properly and in harmony with the intent of the Drawings and Specifications, and to make all changes in the work required by the different arrangement of connections.

1.14 PERMITS, CODES AND APPROVALS

- A. Permits
  - 1. All permits necessary for the complete Electrical systems shall be obtained by the Contractor for Division 26 from the authorities governing such work. The cost of all permits shall be borne by this Contractor.
- B. Codes and Rules and Regulations
  - 1. The minimum standard for all electrical work shall be the latest revision of the National Electrical Code. Whenever and wherever state and/or local laws and/or regulations require a higher standard than the current National Electrical Code, then these laws and/or regulations shall be followed.
- C. Approvals
  - 1. All work must be approved by the Architect /Engineer and the Owner before final payment will be made.

1.15 INSPECTIONS

- 1. Electrical inspections will be performed throughout the course of construction by an electrical inspector from the State Fire Marshal's office. Upon project completion, and when wiring, equipment and fixtures have been installed, inspected and found to be in compliance with the

National Electrical Code, the inspector will issue a certificate of compliance to the Owner. The cost of the inspections shall be borne by this Contractor.

- B. The inspection shall be scheduled for rough as well as finished work. The rough inspection shall be divided into as many inspections as may become necessary to cover all roughing-in. A punch list inspection shall be scheduled with a representative of the Architect /Engineer present. The punch list inspection shall be made with panelboard and junction box covers removed.
- C. Before final acceptance, the Contractor for Division 26 shall furnish a Certificate of Final Approval by the Electrical Inspector to the Architect /Engineer and the Owner.

#### 1.16 UL LISTINGS

- A. Materials and appliances for the type for which there are Underwriters' Laboratories standard requirements listings and labels, shall have listing of Underwriters' Laboratories and shall be so labeled, or shall conform to their requirements, in which case certified statements to that effect shall be furnished by the manufacturer with a copy of an examination report by a recognized testing laboratory acceptable to the Engineer.

#### 1.17 WORKMANSHIP

- A. Competent workmen shall be employed on all phases of the work. Poor workmanship will be rejected and will constitute cause for removal of the individual performing the work.

#### 1.18 MAINTAINING EXISTING FACILITIES

- A. The existing services to and within the building shall be maintained during the construction without interruption, except for short periods of time that may be required to make changeover connections. The Architect /Engineer shall be notified in advance and an agreement reached as to when the connections are to be made and the length of time the particular facility will be out of service.
- B. All temporary connections that may be necessary to continue these services shall be properly made and maintained in a safe and substantial manner until the permanent facilities are activated. Upon completion, remove all temporary work, and completely restore all areas that may be affected.
- C. At any time the existing building facilities are interrupted, the Contractor shall work continuously until the permanent services are restored. The Contractor shall pay for all premium time necessary to comply with these requirements.

#### 1.19 GUARANTY CERTIFICATES

- A. Certificates of guaranty accompanying those items of mechanical and electrical equipment on which manufacturer's guarantees have been specified, or are normally provided, shall be completely executed by the Contractor and delivered to the Architect before completion of the work.

1.20 REMOVAL OF EXISTING EQUIPMENT AND SALVAGE

- A. The Contractor for this Division shall remove existing exposed electrical equipment and materials as indicated on the drawings. All removed equipment and materials shall become the property of the Contractor and shall be removed from the site.

1.21 CLEANING

- A. After the Architect /Engineer has completed examination, the Contractor shall remove all stickers, tags, etc., and shall thoroughly clean all equipment, fixtures and materials installed under his section of the work.
- B. Surplus material, rubbish and equipment resulting from the work shall be removed from the building and premises by the respective Contractors upon completion of the work in accordance with the General Conditions.

1.22 PAINTING

- A. All exposed conduit and equipment installed under this Division, where required, shall be thoroughly cleaned and readied for painting.
- B. Painting in new areas and in existing building areas shown to be remodeled on the Architectural Drawings will be done by the Contractor under Division 9.
- C. Painting in all other areas of the existing building which have been cut and patched under this Division shall be painted to match exactly the existing adjacent surfaces. Where a match cannot be made, the entire surface shall be repainted. All painting shall be performed in strict accordance with the Specifications in Division 9. All exposed electrical work in these areas shall also be painted to match adjacent surfaces.

1.23 WORKMANSHIP

- A. Work shall be performed by mechanics skilled in their respective trades and shall present appearance typical of best trade practice. Work not installed in this manner shall be repaired, removed or replaced, or otherwise remedied as directed by the Architect/Engineer.

1.24 SUPERVISION

- A. The Contractor shall personally supervise the work or have a competent superintendent, satisfactory to the Architect/Engineer and Owner on the work at all times during progress with full authority to act.
- B. The Contractor shall lay out his work and be responsible for any necessary lines, levels, elevations and measurements. He must verify the figures shown on the drawings before laying out the work and will be held responsible for any error resulting from his failure to do so. Work at the site of the project shall be observed by the Architect/Engineer or his representative.
- C. Final Inspection: At the time of final inspection of the work performed under this Contract, systems shall be complete in every respect and in perfect operating condition. Surplus materials of every character resulting from work of this section shall have been removed. Sanitary sewers shall be free from sand, silt

or other obstructions. Any defect discovered in the utilities subsequent to this inspection shall have been corrected.

1.25 WORKING DRAWINGS

- A. Scale of drawings is approximate. Do not scale the drawings to determine locations of electrical work. Exact locations, dimensions and elevations shall be governed by field conditions. Make field measurements of building before fabricating or installing equipment or materials.
- B. Drawings are based on physical dimensions of one or more manufacturer's equipment. Other approved equipment shall be of such dimensions that it can be readily installed in available space, leaving ample clearance for proper maintenance.
- C. Intent of drawings is to show systems and sizes. Drawings do not necessarily show all required offsets. Work shall be installed to conform within space limitations. Offsets, transitions, fittings, etc., shall be provided as part of the Contract where required to attain this objective.

1.26 ELECTRICAL DRAWINGS AND SPECIFICATIONS

- A. The Drawings and Specifications are intended to cover all work enumerated under the respective headings. The Drawings are diagrammatic only. The Contractor shall not take advantage of conflict or error between the Drawings and Specifications but shall request a clarification of such before making his proposal.

1.27 ARCHITECTURAL DRAWINGS AND SPECIFICATIONS

- A. The Contractor shall refer to the Architectural and Structural Drawings and Specifications for the general construction of the building, for floor and ceiling heights, for location of walls, partitions, beams, etc., and shall be guided accordingly for the setting of all sleeves, inserts and equipment.
- B. Under no circumstances shall a Contractor scale the Drawings for the location of equipment and work.

1.28 DISCREPANCIES

- A. If any discrepancies occur between the accompanying Drawings and these Specifications and Drawings and Specifications covering other Contracts, report such discrepancies to the Architect/Engineer far enough in advance so that a workable solution can be presented. No extra payment will be allowed for relocation of piping, ductwork, conduit and equipment not installed in accordance with the above instructions, and which interferes with work and equipment of other Contractors.

1.29 RESTORATION OF SURFACES

- A. The Contractor shall restore to their original conditions all walls, floors, ceilings, structures, and other items damaged or removed by his operations. Replacement and repairs shall be in accordance with good construction practice and shall match material employed in the original construction of the item to be replaced.

1.30 SHOP DRAWINGS

- A. Equipment and material shop drawings, catalog sheets and descriptive data shall be submitted, each with a cover sheet first listing the project name, the Contractors, Architect and Engineer, and date of submittal. Next the section of the Specifications shall be listed stating the section for which the equipment is being proposed. Next, outline equipment showing compliances to the specification requirements, such as capacities, special accessories, options, model, sizes, etc. Reverse side of cover sheet shall be left for Contractors' stamps showing review and space for Engineers' review stamp. Catalog sheets shall be marked showing equipment proposed.
- B. Materials submitted without cover sheet or Contractor review stamp and without required information will be returned to the Contractor.

1.31 PHASING OF WORK

- A. The Contractor under this Division shall refer to Division 1, Section 01100, for a complete description of the schedule for phasing of work on this project.

1.32 STRUCTURAL RESPONSIBILITY

- A. The Contractor shall be responsible for properly shoring, bracing, supporting, etc., any existing and/or new construction to guard against cracking, settling, collapsing, displacing, or weakening. No structural member shall be cut or otherwise weakened in any manner without the written consent of the Architect/Engineer.
- B. Any damage occurring to the existing and/or new structures, due to failure to exercise proper precautions or due to action of the elements, shall be promptly and properly made good to the satisfaction of the Owner or Architect/Engineer, without cost to either the Owner or the Architect/ Engineer.

1.33 ASBESTOS

- A. If during the course of his work the Contractor observes the existence of asbestos, or asbestos-bearing materials, the Contractor shall immediately terminate further work on the project and notify the Owner of the condition. The Owner will, after consultation with the Engineer, determine a further course of action.

1.34 OWNER INSTRUCTION

- A. Conduct a full-day walk-through instruction seminar for the Owner's personnel to be involved in the continued operation and maintenance of mechanical equipment and systems. Explain the identification system, operational diagrams, emergency and alarm provisions, sequencing requirements, seasonal provisions, security, safety, efficiency and similar features of the systems.
- B. All training shall be video recorded for future use by the Owner in training new personnel.

1.35 OWNER OCCUPANCY

- A. Full Owner Occupancy: The Owner will occupy the site and building surrounding construction area during the entire construction period. Cooperate with the Owner during construction operations to minimize

conflicts and facilitate Owner usage. Perform the Work to minimize interference with the Owner's operations. Perform portions of work on premium time if required to do so by the Owner.

1.36 LINTELS:

- A. General: Provide lintels for penetration of electrical systems through masonry walls if not provided elsewhere in these specifications. Lintels shall be type and size required to span the required openings.
- B. Lintels will not be required for openings 16 inches length or less.

1.37 ELECTRICAL WORK IN EXISTING (RENOVATED) AREAS

- A. In existing areas where new work is shown, remove existing exposed conduits, wiremold, surface and flush outlet boxes, wiring devices, fixtures, panels, etc., not required for new arrangement as indicated on the drawings.
- B. Maintain and restore, if interrupted by removals or in path of new construction, all circuits, conduits and feeders passing through and serving undisturbed areas (shown or not shown).
- C. Contractor shall make a complete survey of the existing building before bidding the project. Any conflicts between the plans and/or notes and existing conditions must be brought to the attention of the Architect/Engineer before bidding. If no questions and/or conflicts are brought to the attention of the Architect/Engineer, it will be assumed that the Contractor has completed the survey.

PART 2 - PRODUCTS

2.1 Not Applicable

PART 3 - EXECUTION

3.1 Not Applicable

END OF SECTION 26 0000



## SECTION 26 0500 - COMMON WORK RESULTS FOR ELECTRICAL

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Electrical equipment coordination and installation.
  - 2. Sleeves for raceways and cables.
  - 3. Common electrical installation requirements.

#### 1.3 COORDINATION

- A. Coordinate arrangement, mounting, and support of electrical equipment:
  - 1. To allow maximum possible headroom unless specific mounting heights that reduce headroom are indicated.
  - 2. To provide for ease of disconnecting the equipment with minimum interference to other installations.
  - 3. To allow right of way for piping and conduit installed at required slope.
  - 4. So connecting raceways, cables, wireways, cable trays, and busways will be clear of obstructions and of the working and access space of other equipment.
- B. Coordinate installation of required supporting devices and set sleeves in cast-in-place concrete, masonry walls, and other structural components as they are constructed.
- C. Coordinate location of access panels and doors for electrical items that are behind finished surfaces or otherwise concealed. Access doors and panels are specified in Division 08 Section "Access Doors and Frames."
- D. Coordinate sleeve selection and application with selection and application of firestopping.

### PART 2 - PRODUCTS

#### 2.1 SLEEVES FOR RACEWAYS AND CABLES

- A. Steel Pipe Sleeves: ASTM A 53/A 53M, Type E, Grade B, Schedule 40, galvanized steel, plain ends.

PART 3 - EXECUTION

3.1 COMMON REQUIREMENTS FOR ELECTRICAL INSTALLATION

- A. Comply with NECA 1.
- B. Measure indicated mounting heights to bottom of unit for suspended items and to center of unit for wall-mounting items.
- C. Headroom Maintenance: If mounting heights or other location criteria are not indicated, arrange and install components and equipment to provide maximum possible headroom consistent with these requirements.
- D. Equipment: Install to facilitate service, maintenance, and repair or replacement of components of both electrical equipment and other nearby installations. Connect in such a way as to facilitate future disconnecting with minimum interference with other items in the vicinity.
- E. Right of Way: Give to piping systems installed at a required slope.

3.2 SLEEVE INSTALLATION FOR ELECTRICAL PENETRATIONS

- A. Electrical penetrations occur when raceways, cables, wireways, cable trays, or busways penetrate concrete slabs, concrete or masonry walls, or fire-rated floor and wall assemblies.
- B. Fire-Rated Assemblies: Install sleeves for penetrations of fire-rated floor and wall assemblies unless openings compatible with firestop system used are fabricated during construction of floor or wall.
- C. Cut sleeves to length for mounting flush with both surfaces of walls.
- D. Size pipe sleeves to provide 1/4-inch (6.4-mm) annular clear space between sleeve and raceway or cable, unless indicated otherwise.
- E. Interior Penetrations of Non-Fire-Rated Walls and Floors: Seal annular space between sleeve and raceway or cable, using joint sealant appropriate for size, depth, and location of joint. Comply with requirements in Division 07 Section "Joint Sealants."

END OF SECTION 26 0500

SECTION 26 0519 - LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
  - 1. Copper building wire rated 600 V or less.
  - 2. Connectors, splices, and terminations rated 600 V and less.

PART 2 - PRODUCTS

2.1 COPPER BUILDING WIRE

- A. Description: Flexible, insulated and uninsulated, drawn copper current-carrying conductor with an overall insulation layer or jacket, or both, rated 600 V or less.
- B. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  - 1. General Cable Technologies Corporation.
  - 2. Okonite Company (The).
  - 3. Southwire Company.
- C. Standards:
  - 1. Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and use.
  - 2. RoHS compliant.
  - 3. Conductor and Cable Marking: Comply with wire and cable marking according to UL's "Wire and Cable Marking and Application Guide."
- D. Conductor Insulation:
  - 1. Type THHN and Type THWN-2: Comply with UL 83.

## 2.2 CONNECTORS AND SPLICES

- A. Description: Factory-fabricated connectors, splices, and lugs of size, ampacity rating, material, type, and class for application and service indicated; listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and use.
- B. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  - 1. 3M Electrical Products.
  - 2. Hubbell Power Systems, Inc.
  - 3. O-Z/Gedney; a brand of Emerson Industrial Automation.
  - 4. Thomas & Betts Corporation; A Member of the ABB Group.
- C. Lugs: One piece, seamless, designed to terminate conductors specified in this Section.
  - 1. Material: Copper.
  - 2. Type: Two hole with standard barrels.
  - 3. Termination: Compression.

## PART 3 - EXECUTION

### 3.1 CONDUCTOR MATERIAL APPLICATIONS

- A. Feeders: Copper; solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.
- B. Branch Circuits: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.

### 3.2 INSTALLATION OF CONDUCTORS AND CABLES

- A. Conceal cables in finished walls, ceilings, and floors unless otherwise indicated.
- B. Complete raceway installation between conductor and cable termination points according to Section 260533 "Raceways and Boxes for Electrical Systems" prior to pulling conductors and cables.
- C. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.
- D. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips, that will not damage cables or raceway.
- E. Install exposed cables parallel and perpendicular to surfaces of exposed structural members, and follow surface contours where possible.
- F. Support cables according to Section 260529 "Hangers and Supports for Electrical Systems."

3.3 CONNECTIONS

- A. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A-486B.
- B. Make splices, terminations, and taps that are compatible with conductor material and that possess equivalent or better mechanical strength and insulation ratings than unspliced conductors.
  - 1. Use oxide inhibitor in each splice, termination, and tap for aluminum conductors.

3.4 IDENTIFICATION

- A. Identify and color-code conductors and cables according to Section 260553 "Identification for Electrical Systems."
- B. Identify each spare conductor at each end with identity number and location of other end of conductor, and identify as spare conductor.

END OF SECTION 26 0519

## SECTION 26 0526 - GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes grounding and bonding systems and equipment.

### PART 2 - PRODUCTS

#### 2.1 SYSTEM DESCRIPTION

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Comply with UL 467 for grounding and bonding materials and equipment.

#### 2.2 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
  1. O-Z/Gedney; a brand of Emerson Industrial Automation.
  2. Siemens Industry, Inc., Energy Management Division.
  3. Thomas & Betts Corporation; A Member of the ABB Group.

#### 2.3 CONDUCTORS

- A. Insulated Conductors: Copper wire or cable insulated for 600 V unless otherwise required by applicable Code or authorities having jurisdiction.

#### 2.4 CONNECTORS

- A. Listed and labeled by an NRTL acceptable to authorities having jurisdiction for applications in which used and for specific types, sizes, and combinations of conductors and other items connected.
- B. Beam Clamps: Mechanical type, terminal, ground wire access from four directions, with dual, tin-plated or silicon bronze bolts.
- C. Cable-to-Cable Connectors: Compression type, copper or copper alloy.

- D. Conduit Hubs: Mechanical type, terminal with threaded hub.

## 2.5 GROUNDING ELECTRODES

- A. Ground Rods: Copper-clad 3/4 inch by 10 feet (19 mm by 3 m).

## PART 3 - EXECUTION

### 3.1 APPLICATIONS

- A. Conductors: Install solid conductor for No. 8 AWG and smaller, and stranded conductors for No. 6 AWG and larger unless otherwise indicated.
- B. Conductor Terminations and Connections:
  - 1. Pipe and Equipment Grounding Conductor Terminations: Bolted connectors.
  - 2. Connections to Structural Steel: Welded connectors.

### 3.2 GROUNDING AT THE SERVICE

- A. Equipment grounding conductors and grounding electrode conductors shall be connected to the ground bus. Install a main bonding jumper between the neutral and ground buses.

### 3.3 EQUIPMENT GROUNDING

- A. Install insulated equipment grounding conductors with all feeders and branch circuits.

### 3.4 INSTALLATION

- A. Grounding Conductors: Route along shortest and straightest paths possible unless otherwise indicated or required by Code. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage.
- B. Ground Rods: Drive rods until tops are 2 inches (50 mm) below finished floor or final grade unless otherwise indicated.
  - 1. Interconnect ground rods with grounding electrode conductor below grade and as otherwise indicated. Make connections without exposing steel or damaging coating if any.
  - 2. Use exothermic welds for all below-grade connections.

END OF SECTION 26 0526

## SECTION 26 0529 - HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:
1. Steel slotted support systems.
  2. Conduit and cable support devices.

### PART 2 - PRODUCTS

#### 2.1 SUPPORT, ANCHORAGE, AND ATTACHMENT COMPONENTS

- A. Steel Slotted Support Systems: Preformed steel channels and angles with minimum 13/32-inch- (10-mm-) diameter holes at a maximum of 8 inches (200 mm) o.c. in at least one surface.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
    - a. B-line, an Eaton business.
    - b. G-Strut.
    - c. Thomas & Betts Corporation; A Member of the ABB Group.
    - d. Unistrut; Part of Atkore International.
  2. Standard: Comply with MFMA-4 factory-fabricated components for field assembly.
  3. Material for Channel, Fittings, and Accessories: Galvanized steel.
  4. Channel Width: Selected for applicable load criteria.
  5. Metallic Coatings: Hot-dip galvanized after fabrication and applied according to MFMA-4.
  6. Protect finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- B. Conduit and Cable Support Devices: Steel hangers, clamps, and associated fittings, designed for types and sizes of raceway or cable to be supported.
- C. Mounting, Anchoring, and Attachment Components: Items for fastening electrical items or their supports to building surfaces include the following:
1. Mechanical-Expansion Anchors: Insert-wedge-type, zinc-coated steel, for use in hardened portland cement concrete, with tension, shear, and pullout capacities appropriate for supported loads and building materials where used.



2. Concrete Inserts: Steel or malleable-iron, slotted support system units are similar to MSS Type 18 units and comply with MFMA-4 or MSS SP-58.
3. Clamps for Attachment to Steel Structural Elements: MSS SP-58 units are suitable for attached structural element.
4. Through Bolts: Structural type, hex head, and high strength. Comply with ASTM A 325.
5. Toggle Bolts: All-steel springhead type.
6. Hanger Rods: Threaded steel.

## PART 3 - EXECUTION

### 3.1 APPLICATION

- A. Comply with the following standards for application and installation requirements of hangers and supports, except where requirements on Drawings or in this Section are stricter:
  1. NECA 1.
  2. NECA 101
  3. NECA 102.
  4. NECA 105.
  5. NECA 111.
- B. Comply with requirements for raceways and boxes specified in Section 260533 "Raceways and Boxes for Electrical Systems."
- C. Maximum Support Spacing and Minimum Hanger Rod Size for Raceways: Space supports for EMT, IMC, and RMC as required by NFPA 70. Minimum rod size shall be 1/4 inch (6 mm) in diameter.
- D. Multiple Raceways or Cables: Install trapeze-type supports fabricated with steel slotted [or other] support system, sized so capacity can be increased by at least 25 percent in future without exceeding specified design load limits.
  1. Secure raceways and cables to these supports with single-bolt conduit clamps.
- E. Spring-steel clamps designed for supporting single conduits without bolts may be used for 1-1/2-inch (38-mm) and smaller raceways serving branch circuits and communication systems above suspended ceilings, and for fastening raceways to trapeze supports.

### 3.2 SUPPORT INSTALLATION

- A. Comply with NECA 1 and NECA 101 for installation requirements except as specified in this article.
- B. Raceway Support Methods: In addition to methods described in NECA 1, EMT may be supported by openings through structure members, according to NFPA 70.
- C. Strength of Support Assemblies: Where not indicated, select sizes of components so strength will be adequate to carry present and future static loads within specified loading limits. Minimum static design load used for strength determination shall be weight of supported components plus 200 lb (90 kg).
- D. Mounting and Anchorage of Surface-Mounted Equipment and Components: Anchor and fasten electrical items and their supports to building structural elements by the following methods unless otherwise indicated by code:

1. To Wood: Fasten with lag screws or through bolts.
  2. To New Concrete: Bolt to concrete inserts.
  3. To Masonry: Approved toggle-type bolts on hollow masonry units and expansion anchor fasteners on solid masonry units.
  4. To Existing Concrete: Expansion anchor fasteners.
  5. To Steel: Beam clamps (MSS SP-58, Type 19, 21, 23, 25, or 27), complying with MSS SP-69.
  6. To Light Steel: Sheet metal screws.
  7. Items Mounted on Hollow Walls and Nonstructural Building Surfaces: Mount cabinets, panelboards, disconnect switches, control enclosures, pull and junction boxes, transformers, and other devices on slotted-channel racks attached to substrate.
- E. Drill holes for expansion anchors in concrete at locations and to depths that avoid the need for reinforcing bars.

END OF SECTION 26 0529

## SECTION 26 0533 - RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Metal conduits and fittings.
  - 2. Boxes, enclosures, and cabinets.

### PART 2 - PRODUCTS

#### 2.1 METAL CONDUITS AND FITTINGS

- A. Metal Conduit:
  - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
    - a. Allied Tube & Conduit; a part of Atkore International.
    - b. Korkap.
    - c. O-Z/Gedney; a brand of Emerson Industrial Automation.
  - 2. Listing and Labeling: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
  - 3. EMT: Comply with ANSI C80.3 and UL 797.
  - 4. LFMC: Flexible steel conduit with PVC jacket and complying with UL 360.
  - 5. GRC: Rigid Steel Conduit with thread fittings.
- B. Metal Fittings:
  - 1. Comply with NEMA FB 1 and UL 514B.
  - 2. Listing and Labeling: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
  - 3. Fittings, General: Listed and labeled for type of conduit, location, and use.
  - 4. Fittings for EMT:
    - a. Material: Steel or die cast.
    - b. Type: Compression type for Conduit sizes 2-1/2" and smaller, set-screw or compression type for conduit sizes larger than 2-1/2".

5. Expansion Fittings: PVC or steel to match conduit type, complying with UL 651, rated for environmental conditions where installed, and including flexible external bonding jumper.

## 2.2 BOXES, ENCLOSURES, AND CABINETS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  1. FSR Inc.
  2. Hoffman; a brand of Pentair Equipment Protection.
  3. Hubbell Incorporated.
  4. O-Z/Gedney; a brand of Emerson Industrial Automation.
- B. General Requirements for Boxes, Enclosures, and Cabinets: Boxes, enclosures, and cabinets installed in wet locations shall be listed for use in wet locations.
- C. Sheet Metal Outlet and Device Boxes: Comply with NEMA OS 1 and UL 514A.
- D. Luminaire Outlet Boxes: Nonadjustable, designed for attachment of luminaire weighing 50 lb (23 kg). Outlet boxes designed for attachment of luminaires weighing more than 50 lb (23 kg) shall be listed and marked for the maximum allowable weight.
- E. Small Sheet Metal Pull and Junction Boxes: NEMA OS 1.
- F. Box extensions used to accommodate new building finishes shall be of same material as recessed box.
- G. Device Box Dimensions: 4 inches square by 2-1/8 inches deep (100 mm square by 60 mm deep). Telecommunication boxes shall be 4" square by 2-7/8" deep with single gang plaster ring.
- H. Gangable boxes are allowed.

## PART 3 - EXECUTION

### 3.1 RACEWAY APPLICATION

- A. Indoors/Exterior: Apply raceway products as specified below unless otherwise indicated:
  1. Exterior Exposed, GRC
  2. Indoor Exposed: EMT.
  3. Boxes and Enclosures: NEMA 250, Type 1.
- B. Minimum Raceway Size: 3/4-inch (21-mm) trade size. 1-inch trade size for telecommunication conduit.
- C. Raceway Fittings: Compatible with raceways and suitable for use and location.
  1. EMT: Use Compression type for Conduit sizes 2-1/2" and smaller, set-screw or compression type for conduit sizes larger than 2-1/2". Comply with NEMA FB 2.10.
  2. Flexible Conduit: Use only fittings listed for use with flexible conduit. Comply with NEMA FB 2.20.
- D. Install surface raceways only where indicated on Drawings.

- E. Do not install nonmetallic conduit where ambient temperature exceeds 120 deg F (49 deg C).

### 3.2 INSTALLATION

- A. Comply with requirements in Section 260529 "Hangers and Supports for Electrical Systems" for hangers and supports.
- B. Comply with NECA 1 and NECA 101 for installation requirements except where requirements on Drawings or in this article are stricter. Comply with NECA 102 for aluminum conduits. Comply with NFPA 70 limitations for types of raceways allowed in specific occupancies and number of floors.
- C. Keep raceways at least 6 inches (150 mm) away from parallel runs of flues and steam or hot-water pipes. Install horizontal raceway runs above water and steam piping.
- D. Complete raceway installation before starting conductor installation.
- E. Arrange stub-ups so curved portions of bends are not visible above finished slab.
- F. Install no more than the equivalent of three 90-degree bends in any conduit run except for control wiring conduits, for which fewer bends are allowed. Support within 12 inches (300 mm) of changes in direction.
- G. Make bends in raceway using large-radius preformed ells. Field bending shall be according to NFPA 70 minimum radii requirements. Use only equipment specifically designed for material and size involved.
- H. Conceal conduit within finished walls, ceilings, and floors unless otherwise indicated. Install conduits parallel or perpendicular to building lines.
- I. Support conduit within 12 inches (300 mm) of enclosures to which attached.
- J. Stub-Ups to Above Recessed Ceilings:
  - 1. Use EMT for raceways.
  - 2. Use a conduit bushing or insulated fitting to terminate stub-ups not terminated in hubs or in an enclosure.
- K. Threaded Conduit Joints, Exposed to Wet, Damp, Corrosive, or Outdoor Conditions: Apply listed compound to threads of raceway and fittings before making up joints. Follow compound manufacturer's written instructions.
- L. Raceway Terminations at Locations Subject to Moisture or Vibration: Use insulating bushings to protect conductors including conductors smaller than No. 4 AWG.
- M. Terminate threaded conduits into threaded hubs or with locknuts on inside and outside of boxes or cabinets. Install bushings on conduits up to 1-1/4-inch (35mm) trade size and insulated throat metal bushings on 1-1/2-inch (41-mm) trade size and larger conduits terminated with locknuts. Install insulated throat metal grounding bushings on service conduits.
- N. Install raceways square to the enclosure and terminate at enclosures with locknuts. Install locknuts hand tight plus 1/4 turn more.
- O. Do not rely on locknuts to penetrate nonconductive coatings on enclosures. Remove coatings in the locknut area prior to assembling conduit to enclosure to assure a continuous ground path.

- P. Cut conduit perpendicular to the length. For conduits 2-inch (53-mm) trade size and larger, use roll cutter or a guide to make cut straight and perpendicular to the length.
- Q. Install pull wires in empty raceways. Use polypropylene or monofilament plastic line with not less than 200-lb (90-kg) tensile strength. Leave at least 12 inches (300 mm) of slack at each end of pull wire. Cap underground raceways designated as spare above grade alongside raceways in use.
- R. Flexible Conduit Connections: Comply with NEMA RV 3. Use a maximum of 72 inches (1830 mm) of flexible conduit for recessed and semirecessed luminaires, equipment subject to vibration, noise transmission, or movement; and for transformers and motors.
- S. Mount boxes at heights indicated on Drawings. If mounting heights of boxes are not individually indicated, give priority to ADA requirements. Install boxes with height measured to bottom of box unless otherwise indicated.
- T. Horizontally separate boxes mounted on opposite sides of walls so they are not in the same vertical channel.
- U. Locate boxes so that cover or plate will not span different building finishes.
- V. Support boxes of three gangs or more from more than one side by spanning two framing members or mounting on brackets specifically designed for the purpose.
- W. Fasten junction and pull boxes to or support from building structure. Do not support boxes by conduits.

END OF SECTION 26 0533

SECTION 26 0543 - UNDERGROUND DUCTS AND RACEWAYS FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
  - 1. Metal conduits and fittings, including GRC.
  - 2. Rigid nonmetallic duct.

1.3 DEFINITIONS

- A. Direct Buried: Duct or a duct bank that is buried in the ground, without any additional casing materials such as concrete.
- B. GRC: Galvanized rigid (steel) conduit.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
  - 1. Include duct-bank materials, including spacers and miscellaneous components.
  - 2. Include duct, conduits, and their accessories, including elbows, end bells, bends, fittings, and solvent cement.
  - 3. Include underground-line warning tape.

1.5 FIELD CONDITIONS

- A. Interruption of Existing Electrical Service: Do not interrupt electrical service to facilities occupied by Owner or others unless permitted under the following conditions, and then only after arranging to provide temporary electrical service according to requirements indicated:
  - 1. Notify Owner no fewer than 14 days in advance of proposed interruption of electrical service.
  - 2. Do not proceed with interruption of electrical service without Owner's written permission.
- B. Ground Water: Assume ground-water level is at grade level unless a lower water table is noted on Drawings.

## PART 2 - PRODUCTS

### 2.1 METAL CONDUIT AND FITTINGS

- A. GRC: Comply with ANSI C80.1 and UL 6.
- B. Listed and labeled as defined in NFPA 70, by a nationally recognized testing laboratory, and marked for intended location and application.

### 2.2 RIGID NONMETALLIC DUCT

- A. Underground Plastic Utilities Duct: Type EPC-40-PVC RNC, complying with NEMA TC 2 and UL 651, with matching fittings complying with NEMA TC 3 by same manufacturer as duct.
- B. Listed and labeled as defined in NFPA 70, by a nationally recognized testing laboratory, and marked for intended location and application.
- C. Solvents and Adhesives: As recommended by conduit manufacturer.
- D. Underground-Line Warning Tape: Comply with requirements for underground-line warning tape specified in Section 260553 "Identification for Electrical Systems."

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Coordinate layout and installation of duct, duct bank, manholes, handholes, and boxes with final arrangement of other utilities, site grading, and surface features as determined in the field. Notify Architect if there is a conflict between areas of excavation and existing structures or archaeological sites to remain.
- B. Coordinate elevations of duct and duct-bank entrances into manholes, handholes, and boxes with final locations and profiles of duct and duct banks, as determined by coordination with other utilities, underground obstructions, and surface features. Revise locations and elevations as required to suit field conditions and to ensure that duct and duct bank will drain to manholes and handholes, and as approved by Architect.

### 3.2 UNDERGROUND DUCT APPLICATION

- A. Duct for Electrical Feeders 600 V and Less: Type EPC-40-PVC RNC, direct-buried unless otherwise indicated.
- B. Duct for Electrical Branch Circuits: Type EPC-40-PVC RNC, direct-buried unless otherwise indicated.

### 3.3 EARTHWORK

- A. Restoration: Replace area immediately after backfilling is completed.



- B. Restore surface features at areas disturbed by excavation, and re-establish original grades unless otherwise indicated. Replace removed sod immediately after backfilling is completed.
- C. Restore areas disturbed by trenching, storing of dirt, cable laying, and other work. Restore vegetation and include necessary topsoiling, fertilizing, liming, seeding, sodding, sprigging, and mulching.
- D. Cut and patch existing pavement in the path of underground duct, duct bank, and underground structures according to "Cutting and Patching".

#### 3.4 DUCT AND DUCT-BANK INSTALLATION

- A. Install duct according to NEMA TCB 2.
- B. Manufactured sweep bends in "Curves and Bends" Paragraph below are available in various radii up to 25 feet (7.5 m) for 4- and 5-inch (100- and 125-mm) duct, although a 48-inch (1200-mm) radius is the largest regularly stocked. To minimize pulling tensions, specify the largest radius possible, consistent with other Project requirements. See the Evaluations. Coordinate with Drawings.
- C. Curves and Bends: Use 5-degree angle couplings for small changes in direction. Use manufactured long sweep bends with a minimum radius of 48 inches both horizontally and vertically, at other locations unless otherwise indicated.
  - 1. Duct shall have maximum of two 90 degree bends or the total of all bends shall be no more 180 degrees between pull points.
- D. Joints: Use solvent-cemented joints in duct and fittings and make watertight according to manufacturer's written instructions. Stagger couplings so those of adjacent duct do not lie in same plane.
- E. Building Wall Penetrations: Make a transition from underground duct to GRC outside the building wall, without reducing duct line slope away from the building and without forming a trap in the line. Use fittings manufactured for RNC-to-GRC transition. Install GRC penetrations of building walls as specified in Section 260544 "Sleeves and Sleeve Seals for Electrical Raceways and Cabling."
- F. Pulling Cord: Install 200-lbf- (1000-N-) test nylon cord in empty ducts.
- G. Direct-Buried Duct and Duct Bank:
  - 1. Excavate trench bottom to provide firm and uniform support for duct. Comply with requirements in "Earth Moving" for preparation of trench bottoms for pipes less than 6 inches (150 mm) in nominal diameter.
  - 2. Width: Excavate trench 12 inches (300 mm) wider than duct.
  - 3. Width: Excavate trench 3 inches (75 mm) wider than duct on each side.
  - 4. Depth: Install top of duct at least 36 inches (900 mm) below finished grade unless otherwise indicated.
  - 5. Set elevation of bottom of duct bank below frost line.
  - 6. Support ducts on duct spacers coordinated with duct size, duct spacing, and outdoor temperature.
- H. Underground-Line Warning Tape: Bury conducting underground line specified in Section 260553 "Identification for Electrical Systems" no less than 12 inches (300 mm) above all duct banks and approximately 12 inches (300 mm) below grade. Align tape parallel to and within 3 inches (75 mm) of centerline of duct bank. Provide an additional warning tape for each 12-inch (300-mm) increment of duct-bank width over a nominal 18 inches (450 mm). Space additional tapes 12 inches (300 mm) apart, horizontally.

3.5 FIELD QUALITY CONTROL

- A. Perform the following tests and inspections:
  - 1. Demonstrate capability and compliance with requirements on completion of installation of underground duct.
  - 2. Pull solid aluminum or wood test mandrel through duct to prove joint integrity and adequate bend radii, and test for out-of-round duct. Provide a minimum 12-inch- (300-mm-) long mandrel equal to duct size minus 1/4 inch (6 mm). If obstructions are indicated, remove obstructions and retest.
- B. Correct deficiencies and retest as specified above to demonstrate compliance.
- C. Prepare test and inspection reports.

3.6 CLEANING

- A. Pull leather-washer-type duct cleaner, with graduated washer sizes, through full length of duct until duct cleaner indicates that duct is clear of dirt and debris. Follow with rubber duct swab for final cleaning and to assist in spreading lubricant throughout ducts.
- B. Clean internal surfaces of manholes, including sump.
  - 1. Sweep floor, removing dirt and debris.
  - 2. Remove foreign material.

END OF SECTION 26 0543

## SECTION 26 0544 - SLEEVES AND SLEEVE SEALS FOR ELECTRICAL RACEWAYS AND CABLING

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Sleeves for raceway and cable penetration of non-fire-rated construction walls and floors.
  - 2. Sleeve-seal systems.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.

### PART 2 - PRODUCTS

#### 2.1 SLEEVES

- A. Wall Sleeves:
  - 1. Steel Pipe Sleeves: ASTM A 53/A 53M, Type E, Grade B, Schedule 40, zinc coated, plain ends.

#### 2.2 SLEEVE-SEAL SYSTEMS

- A. Description: Modular sealing device, designed for field assembly, to fill annular space between sleeve and raceway or cable.
  - 1. Sealing Elements: EPDM rubber interlocking links shaped to fit surface of pipe. Include type and number required for pipe material and size of pipe.
  - 2. Pressure Plates: Stainless steel.
  - 3. Connecting Bolts and Nuts: Stainless steel of length required to secure pressure plates to sealing elements.

#### 2.3 SLEEVE-SEAL FITTINGS

- A. Description: Manufactured plastic, sleeve-type, waterstop assembly made for embedding in concrete slab or wall. Unit shall have plastic or rubber waterstop collar with center opening to match piping OD.

PART 3 - EXECUTION

3.1 SLEEVE-SEAL-SYSTEM INSTALLATION

- A. Install sleeve-seal systems in sleeves in exterior masonry walls and slabs-on-grade at raceway entries into building.
- B. Install type and number of sealing elements recommended by manufacturer for raceway or cable material and size. Position raceway or cable in center of sleeve. Assemble mechanical sleeve seals and install in annular space between raceway or cable and sleeve. Tighten bolts against pressure plates that cause sealing elements to expand and make watertight seal.

3.2 SLEEVE-SEAL-FITTING INSTALLATION

- A. Install sleeve-seal fittings in new walls and slabs as they are constructed.
- B. Assemble fitting components of length to be flush with both surfaces of concrete slabs and walls. Position waterstop flange to be centered in concrete slab or wall.

END OF SECTION 26 0544

## SECTION 26 0553 - IDENTIFICATION FOR ELECTRICAL SYSTEMS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Labels.

### PART 2 - PRODUCTS

#### 2.1 SIGNS

- A. Laminated Acrylic or Melamine Plastic Signs:
  - 1. Engraved legend.
  - 2. Thickness:
    - a. For signs up to 20 sq. in. (129 sq. cm), minimum 1/16 inch (1.6 mm) thick.
    - b. For signs larger than 20 sq. in. (129 sq. cm), 1/8 inch (3.2 mm) thick.
    - c. Engraved legend with black letters on white face.
    - d. Self-adhesive.

### PART 3 - EXECUTION

#### 3.1 PREPARATION

- A. Self-Adhesive Identification Products: Before applying electrical identification products, clean substrates of substances that could impair bond, using materials and methods recommended by manufacturer of identification product.

#### 3.2 INSTALLATION

- A. Verify and coordinate identification names, abbreviations, colors, and other features with requirements in other Sections requiring identification applications, Drawings, Shop Drawings, manufacturer's wiring diagrams, and operation and maintenance manual. Use consistent designations throughout Project.
- B. Install identifying devices before installing acoustical ceilings and similar concealment.
- C. Verify identity of each item before installing identification products.

- D. Coordinate identification with Project Drawings, manufacturer's wiring diagrams, and operation and maintenance manual.
- E. Apply identification devices to surfaces that require finish after completing finish work.
- F. Install signs with approved legend to facilitate proper identification, operation, and maintenance of electrical systems and connected items.
- G. Elevated Components: Increase sizes of labels, signs, and letters to those appropriate for viewing from the floor.
- H. Self-Adhesive Labels:
  - 1. On each item, install unique designation label that is consistent with wiring diagrams, schedules, and operation and maintenance manual.
  - 2. Field-Applied, Color-Coding Conductor Tape: Apply in half-lapped turns for a minimum distance of 6 inches (150 mm) where splices or taps are made. Apply last two turns of tape with no tension to prevent possible unwinding.
- I. Laminated Acrylic or Melamine Plastic Signs:
  - 1. Attach signs that are not self-adhesive type with mechanical fasteners appropriate to the location and substrate.
  - 2. Unless otherwise indicated, provide a single line of text with 1/2-inch- (13-mm-) high letters on 1-1/2-inch- (38-mm-) high sign; where two lines of text are required, use labels 2 inches (50 mm) high.

3.3 ELECTRICAL EQUIPMENT IDENTIFICATION ABOVE CEILING:

- A. Attach Seton-Ply Discs to ceiling grid under equipment or to access doors in non-accessible ceilings as follows:

	Equipment	Engraved	Background Color	Lettering Color
1.	Distribution Panelboard	DPB	Black	White
2.	Panelboard	PB	Black	White
3.	Disconnect	DSC	Black	White

3.4 IDENTIFICATION SCHEDULE

- A. Install identification materials and devices at locations for most convenient viewing without interference with operation and maintenance of equipment. Install access doors or panels to provide view of identifying devices.
- B. Equipment Identification Labels:
  - 1. Indoor Equipment: Laminated acrylic or melamine plastic sign.
  - 2. Equipment to Be Labeled:
    - a. Panelboards:

- b. Existing Panelboards
  - c. Capacitors
- C. All wiring device covers shall be labeled to indicated panel and circuit number. Labels shall be machine printed, self-adhesive labels, typed and laminated. The inside of the box shall be labeled with permanent marker.
- D. Label all circuits entering each lighting control relay with a permanent marker on the door of the relay cabinet/enclosure.

END OF SECTION 26 0553

## SECTION 26 2416 - PANELBOARDS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Distribution panelboards.

#### 1.3 DEFINITIONS

- A. ATS: Acceptance testing specification.
- B. GFCI: Ground-fault circuit interrupter.
- C. GFEP: Ground-fault equipment protection.
- D. HID: High-intensity discharge.
- E. MCCB: Molded-case circuit breaker.
- F. SPD: Surge protective device.
- G. VPR: Voltage protection rating.

#### 1.4 ACTION SUBMITTALS

- A. Product Data: For each type of panelboard.
  - 1. Include materials, switching and overcurrent protective devices, SPDs, accessories, and components indicated.
  - 2. Include dimensions and manufacturers' technical data on features, performance, electrical characteristics, ratings, and finishes.
- B. Shop Drawings: For each panelboard and related equipment.
  - 1. Include dimensioned plans, elevations, sections, and details.
  - 2. Show tabulations of installed devices with nameplates, conductor termination sizes, equipment features, and ratings.
  - 3. Detail enclosure types including mounting and anchorage, environmental protection, knockouts, corner treatments, covers and doors, gaskets, hinges, and locks.
  - 4. Detail bus configuration, current, and voltage ratings.



5. Short-circuit current rating of panelboards and overcurrent protective devices.
6. Include evidence of NRTL listing for series rating of installed devices.
7. Include evidence of NRTL listing for SPD as installed in panelboard.
8. Detail features, characteristics, ratings, and factory settings of individual overcurrent protective devices and auxiliary components.
9. Include wiring diagrams for power, signal, and control wiring.
10. Include time-current coordination curves for each type and rating of overcurrent protective device included in panelboards. Submit on translucent log-log graph paper; include selectable ranges for each type of overcurrent protective device. Include an Internet link for electronic access to downloadable PDF of the coordination curves.

#### 1.5 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For panelboards and components to include in emergency, operation, and maintenance manuals. In addition to items specified in Section 017823 "Operation and Maintenance Data," include the following:
  1. Manufacturer's written instructions for testing and adjusting overcurrent protective devices.
  2. Time-current curves, including selectable ranges for each type of overcurrent protective device that allows adjustments.

#### 1.6 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  1. Keys: Two spares for each type of panelboard cabinet lock.

#### 1.7 QUALITY ASSURANCE

- A. Manufacturer Qualifications: ISO 9001 or 9002 certified.

#### 1.8 DELIVERY, STORAGE, AND HANDLING

- A. Remove loose packing and flammable materials from inside panelboards; install temporary electric heating (250 W per panelboard) to prevent condensation.
- B. Handle and prepare panelboards for installation according to NEMA PB 1.

#### 1.9 FIELD CONDITIONS

- A. Interruption of Existing Electric Service: Do not interrupt electric service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary electric service according to requirements indicated:
  1. Notify the owner no fewer than 14 days in advance of proposed interruption of electric service.
  2. Do not proceed with interruption of electric service without Owner's written permission.
  3. Comply with NFPA 70E.

1.10 WARRANTY

- A. Manufacturer's Warranty: Manufacturer agrees to repair or replace panelboards that fail in materials or workmanship within specified warranty period.

PART 2 - PRODUCTS

2.1 PANELBOARDS COMMON REQUIREMENTS

- A. Product Selection for Restricted Space: Drawings indicate maximum dimensions for panelboards including clearances between panelboards and adjacent surfaces and other items. Comply with indicated maximum dimensions.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- C. Comply with NEMA PB 1.
- D. Comply with NFPA 70.
- E. Enclosures: Surface-mounted, dead-front cabinets.
  - 1. Rated for environmental conditions at installed location.
    - a. Indoor Dry and Clean Locations: NEMA 250.
  - 2. Height: 84 inches (2.13 m) maximum.
  - 3. Front: Secured to box with concealed trim clamps. For surface-mounted fronts, match box dimensions; for flush-mounted fronts, overlap box. Trims shall cover all live parts and shall have no exposed hardware.
  - 4. Finishes:
    - a. Panels and Trim: Steel, factory finished immediately after cleaning and pretreating with manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat.
    - b. Back Boxes: Galvanized steel.
- F. Incoming Mains:
  - 1. Location: Convertible between top and bottom.
  - 2. Main Breaker: Main lug interiors up to 400 amperes shall be field convertible to main breaker.
- G. Phase, Neutral, and Ground Buses:
  - 1. Material: Hard-drawn copper, 98 percent conductivity.
    - a. Bus shall be fully rated the entire length.
  - 2. Interiors shall be factory assembled into a unit. Replacing switching and protective devices shall not disturb adjacent units or require removing the main bus connectors.

3. Equipment Ground Bus: Adequate for feeder and branch-circuit equipment grounding conductors; bonded to box.
  4. Full-Sized Neutral: Equipped with full-capacity bonding strap for service entrance applications. Mount electrically isolated from enclosure. Do not mount neutral bus in gutter.
- H. Conductor Connectors: Suitable for use with conductor material and sizes.
1. Material: Hard-drawn copper, 98 percent conductivity.
  2. Terminations shall allow use of 75 deg C rated conductors without derating.
  3. Size: Lugs suitable for indicated conductor sizes, with additional gutter space, if required, for larger conductors.
  4. Main and Neutral Lugs: Mechanical type, with a lug on the neutral bar for each pole in the panelboard.
  5. Ground Lugs and Bus-Configured Terminators: Mechanical type, with a lug on the bar for each pole in the panelboard.
- I. NRTL Label: Panelboards shall be labeled by an NRTL acceptable to authority having jurisdiction for use as service equipment with one or more main service disconnecting and overcurrent protective devices. Panelboards or load centers shall have meter enclosures, wiring, connections, and other provisions for utility metering. Coordinate with utility company for exact requirements.
- J. Future Devices: Panelboards or load centers shall have mounting brackets, bus connections, filler plates, and necessary appurtenances required for future installation of devices.
- K. Panelboard Short-Circuit Current Rating: Fully rated to interrupt symmetrical short-circuit current available at terminals. Assembly listed by an NRTL for 100 percent interrupting capacity.
1. Panelboards and overcurrent protective devices rated 240 V or less shall have short-circuit ratings as shown on Drawings, but not less than 10,000 A rms symmetrical.

## 2.2 DISTRIBUTION PANELBOARDS

- A. Panelboards: NEMA PB 1, distribution type.
- B. Doors: Secured with vault-type latch with tumbler lock; keyed alike.
  1. For doors more than 36 inches high, provide two latches, keyed alike.
- C. Mains: Circuit or Lugs only refer to Panel Schedules on the drawings.
- D. Branch Overcurrent Protective Devices for Circuit-Breaker Frame Sizes 125 A and Smaller: Bolt-on circuit breakers.
- E. Branch Overcurrent Protective Devices for Circuit-Breaker Frame Sizes Larger Than 125 A: Bolt-on circuit breakers.
- F. Branch Overcurrent Protective Devices: Fused switches.
- G. Digital Metering.

## 2.4 DIGITAL METERING

A. Multifunction Digital-Metering Monitor: Microprocessor-based unit suitable for three or four-wire systems and with the following features:

1. Switch-selectable digital display of the following values with maximum accuracy tolerances as indicated:

- a. Phase Currents, Each Phase: Plus or minus 1 percent.
- b. Phase-to-Phase Voltages, Three Phase: Plus or minus 1 percent.
- c. Phase-to-Neutral Voltages, Three Phase: Plus or minus 1 percent.
- d. Kilowatts: Plus or minus 2 percent.
- e. Kilovars: Plus or minus 2 percent.
- f. Power Factor: Plus or minus 2 percent.
- g. Frequency: Plus or minus 0.5 percent.
- h. Accumulated Energy, Kilowatt Hours: Plus or minus 2 percent; accumulated values unaffected by power outages up to 72 hours.
- i. Kilowatt Demand: Plus or minus 2 percent; demand interval programmable from five to 60 minutes.
- j. Contact device to operate remote impulse-totalling demand meter.

2. Ethernet communication 10/100 Base-T UTP port. Full-function embedded web server providing standard web browser access to meter data and the ability to email an alarm.

3. Mounting: Display and control unit semi-flush mounted and prewired in a NEMA 1 enclosure with hinged cover and glass door.

Provide Current Transformers as required by the meter manufacturer.

## 2.3 DISCONNECTING AND OVERCURRENT PROTECTIVE DEVICES

A. MCCB: Comply with UL 489, with interrupting capacity to meet available fault currents of 30,000 amps AIC.

1. Thermal-Magnetic Circuit Breakers:

- a. Inverse time-current element for low-level overloads.
- b. Instantaneous magnetic trip element for short circuits.
- c. Adjustable magnetic trip setting for circuit-breaker frame sizes 250 A and larger.

2. Adjustable Instantaneous-Trip Circuit Breakers: Magnetic trip element with front-mounted, field-adjustable trip setting.

3. MCCB Features and Accessories:

- a. Standard frame sizes, trip ratings, and number of poles.
- b. Breaker handle indicates tripped status.
- c. UL listed for reverse connection without restrictive line or load ratings.
- d. Lugs: Mechanical style, suitable for number, size, trip ratings, and conductor materials.

## 2.4 IDENTIFICATION

- A. Panelboard Label: Manufacturer's name and trademark, voltage, amperage, number of phases, and number of poles shall be located on the interior of the panelboard door.
- B. Breaker Labels: Faceplate shall list current rating, UL and IEC certification standards, and AIC rating.
- C. Circuit Directory: Directory card inside panelboard door, mounted in metal frame with transparent protective cover.
  - 1. Circuit directory shall identify specific purpose with detail sufficient to distinguish it from all other circuits.
- D. Circuit Directory: Computer-generated circuit directory mounted inside panelboard door with transparent plastic protective cover.
  - 1. Circuit directory shall identify specific purpose with detail sufficient to distinguish it from all other circuits.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Verify actual conditions with field measurements prior to ordering panelboards to verify that equipment fits in allocated space in, and comply with, minimum required clearances specified in NFPA 70.
- B. Receive, inspect, handle, and store panelboards according to NEMA PB 1.1.
- C. Examine panelboards before installation. Reject panelboards that are damaged, rusted, or have been subjected to water saturation.
- D. Examine elements and surfaces to receive panelboards for compliance with installation tolerances and other conditions affecting performance of the Work.
- E. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION

- A. Coordinate layout and installation of panelboards and components with other construction that penetrates walls or is supported by them, including electrical and other types of equipment, raceways, piping, encumbrances to workspace clearance requirements, and adjacent surfaces. Maintain required workspace clearances and required clearances for equipment access doors and panels.
- B. Comply with NECA 1.
- C. Install panelboards and accessories according to NEMA PB 1.1.
- D. Equipment Mounting:
  - 1. Attach panelboard to the vertical finished or structural surface behind the panelboard.

- E. Temporary Lifting Provisions: Remove temporary lifting eyes, channels, and brackets and temporary blocking of moving parts from panelboards.
- F. Mount top of trim mount the top at the same elevation above finished floor as the existing panel being replaced.
- G. Mount panelboard cabinet plumb and rigid without distortion of box.
- H. Install overcurrent protective devices and controllers not already factory installed.
  - 1. Set field-adjustable, circuit-breaker trip ranges.
  - 2. Tighten bolted connections and circuit breaker connections using calibrated torque wrench or torque screwdriver per manufacturer's written instructions.
- I. Make grounding connections and bond neutral for services and separately derived systems to ground. Make connections to grounding electrodes, separate grounds for isolated ground bars, and connections to separate ground bars.
- J. Install filler plates in unused spaces.

### 3.3 IDENTIFICATION

- A. Identify field-installed conductors, interconnecting wiring, and components; install warning signs complying with requirements in Section 260553 "Identification for Electrical Systems."
- B. Create a directory to indicate installed circuit loads; incorporate Owner's final room designations. Obtain approval before installing. Handwritten directories are not acceptable. Install directory inside panelboard door.
- C. Panelboard Nameplates: Label each panelboard with a nameplate complying with requirements for identification specified in Section 260553 "Identification for Electrical Systems."
- D. Device Nameplates: Label each branch circuit device in power panelboards with a nameplate complying with requirements for identification specified in Section 260553 "Identification for Electrical Systems."
- E. Install warning signs complying with requirements in Section 260553 "Identification for Electrical Systems" identifying source of remote circuit.

### 3.4 FIELD QUALITY CONTROL

- A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust components, assemblies, and equipment installations, including connections.
- B. Perform tests and inspections.
  - 1. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.
- C. Acceptance Testing Preparation:
  - 1. Test insulation resistance for each panelboard bus, component, connecting supply, feeder, and control circuit.

2. Test continuity of each circuit.

D. Tests and Inspections:

1. Perform each visual and mechanical inspection and electrical test for low-voltage air circuit breakers . Certify compliance with test parameters.
2. Correct malfunctioning units on-site, where possible, and retest to demonstrate compliance; otherwise, replace with new units and retest.

E. Panelboards will be considered defective if they do not pass tests and inspections.

F. Prepare test and inspection reports, including a certified report that identifies panelboards included and that describes scanning results, with comparisons of the two scans. Include notation of deficiencies detected, remedial action taken, and observations after remedial action.

3.5 ADJUSTING

A. Adjust moving parts and operable components to function smoothly, and lubricate as recommended by manufacturer.

END OF SECTION 26 2416

SECTION 26 2713 - ELECTRICITY METERING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes work to accommodate utility company revenue meters. Refer to Section 26 2416 Panelboards for owner metering on the service entrance panelboard.

1.3 FIELD CONDITIONS

- A. Interruption of Existing Electrical Service: Do not interrupt electrical service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary electrical service according to requirements indicated:
  - 1. Owner shall be notified and issued written permission no fewer than 14 days in advance of proposed interruption of electrical service.

1.4 COORDINATION

- A. Electrical Service Connections:
  - 1. Coordinate with utility companies and utility-furnished components.
    - a. Comply with requirements of utility providing electrical power services.
    - b. Coordinate installation and connection of utilities and services, including provision for electricity-metering components.

PART 2 - PRODUCTS

2.1 SYSTEM DESCRIPTION

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Comply with UL 916.

2.2 UTILITY METERING INFRASTRUCTURE

- A. Install metering accessories complying with its requirements of the Utility Company.



- B. Current-Transformer Cabinets: Comply with requirements of electrical-power utility company.
- C. Meter Sockets:
  - 1. Comply with requirements of electrical-power utility company.
  - 2. Meter Sockets: Steady-state and short-circuit current ratings shall meet indicated circuit ratings.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Comply with equipment installation requirements in NECA 1.
- B. Install meters furnished by utility company. Install raceways and equipment according to utility company's written instructions. Provide empty conduits for metering leads and extend grounding connections as required by utility company.
- C. Wiring Method:
  - 1. Comply with requirements in Section 260519 "Low-Voltage Electrical Power Conductors and Cables."

END OF SECTION 26 2713

## SECTION 26 3526 – ACTIVE HARMONIC FILTERS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Scope: Provide labor, material, equipment, related services, and supervision required, including, but not limited to, manufacturing, fabrication, erection, and installation for low voltage active harmonic filters (also identified as AHFs) as required for the complete performance of the work, and as shown on the Drawings and as herein specified.
- B. Related Sections: Related sections include, but shall not be limited to, the following:
  - 1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
  - 2. Applicable general requirements for electrical Work specified within Division 26 Specification Sections apply to this Section.
  - 3. Refer to specifications sections of non-linear or switching electrical equipment for coordination of harmonic mitigation.

#### 1.2 REFERENCES

- A. The publications listed below form a part of this Specification to the extent referenced. The publications are referred to in the text by the basic designation only. The edition/revision of the referenced publications shall be the latest date as of the date of the Contract Documents, unless otherwise specified.
  - 1. Institute of Electrical and Electronics Engineers, Inc. (IEEE):
    - a. ANSI/IEEE 519, "Guide for Harmonic Control and Reactive Compensation of Static Power Converters."
  - 2. National Electrical Manufacturers Association (NEMA):
    - a. NEMA 250, "Enclosures for Electrical Equipment (1000 Volts Maximum)"
  - 3. National Fire Protection Association (NFPA):
    - a. NFPA 70, "National Electrical Code" (copyrighted by NFPA, ANSI approved) hereinafter referred to as NEC.
    - b. NFPA 70E, "Standard for Electrical Safety Requirements for Employee Workplaces" (copyrighted by NFPA, ANSI approved).
    - c. NFPA 5000, "Building Construction and Safety Code."
  - 4. Underwriters Laboratories, Inc. (UL):
    - a. UL 508, "Standard for Industrial Control Equipment."
    - b. UL 1449, "Standard for Transient Voltage Surge Suppressers."

#### 1.3 DEFINITIONS

- A. Unless specifically defined within the Contract Documents, the words or acronyms contained within this specification shall be as defined within, or by the references listed within this specification, the Contract Documents, or, if not listed by either, by common industry practice.
  - 1. EMC: Electromagnetic Compatibility
  - 2. HMI: Human Machine Interface
  - 3. IGBT: Insulated gate bipolar transistor

4. LV: Low voltage
5. MTBF: Mean time between failure
6. MTTR: Mean time to repair
7. SMPS: Switched Mode Power Supply
8. SPD: Surge Protective Device
9. VFD: Variable frequency drive
10. VSD: Variable Speed Drive

#### 1.4 SUBMITTALS

- A. General: Submittals shall be in accordance to those specified herein.
  1. Submit sufficient information to determine compliance with the Contract Documents. Identify submittal data with the specific equipment tags and/or service descriptions to which they pertain. Submittal data shall be clearly marked to identify the specific model numbers, options, and features of equipment and work proposed.
  2. Deviations from the Contract Documents shall be indicated within the submittal. Each deviation shall reference the corresponding drawing or specification number, show the Contract Document requirement text and/or illustration, and shall be accompanied by a detailed written justification for the deviation.
- B. Product Data: Submit required product data specific to each product and accessory proposed. In addition, include the following information:
  1. AHF assembly rated input KVA and output KVA, topology, converter/inverter type, percent efficiency, operating characteristics, and electrical characteristics
  2. Maximum [Btu] [kJ] heat release data and ambient cooling requirements
  3. Certification of UL conformity
- C. Statement of extended warranty options and costs.
- D. O&M manuals shall be submitted prior to arrival of equipment on site.

#### 1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Manufacturer shall be a firm engaged in the manufacture of variable frequency motor controllers of types and sizes required, and whose products have been in satisfactory use in similar service for a minimum of ten years.
  1. The manufacturer shall have a valid ISO 9001 certification and an applicable quality assurance system that is regularly reviewed and audited by a third party registrar. Manufacturing, inspection, and testing procedures shall be developed and controlled under the guidelines of the quality assurance system.
  2. The manufacturer or their representative shall have service, repair, and technical support services available 24 hours 7 days a week basis.
- B. All work performed and all materials used shall be in accordance with the National Electrical Code, and with applicable local regulations and ordinances. Equipment, assemblies and materials shall be listed and labeled by Underwriter's Laboratories or by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Prior to delivery to the Project site, ensure that suitable storage space is available to store materials in a well-ventilated area protected from weather, moisture, soiling, extreme temperatures, humidity, and corrosive atmospheres. Materials shall be protected during delivery and storage and shall not exceed the manufacturer stated storage requirements. As a minimum, store indoors in clean, dry space with uniform temperature to prevent condensation. In addition, protect electronics from all forms of electrical and magnetic energy that could reasonably cause damage.
- B. Deliver materials to the Project site in supplier's or manufacturer's original wrappings and containers, labeled with supplier's or manufacturer's name, material or product brand name, and equipment tag number or service name as identified within the Contract Documents.
- C. Inspect and report any concealed damage or violation of delivery storage, and handling requirements to the Engineer.

1.7 WARRANTY

- A. General: Refer to the LFUCG contract documents.
- B. Additional Owner Rights: The warranty shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to and run concurrent with other warranties made by the Contractor under requirements of the Contract Documents.

1.8 SPECIAL TOOLS AND SPARE PARTS [NOT USED]

- A. Spare parts shall be provided for each type and size of unit installed. At a minimum, the following shall be provided:
  - 1. Provide the minimum spare parts recommended by the manufacturer.
  - 2. Provide [1] set of each type of power and control fuse installed within equipment
- B. Spare parts shall be properly marked and packaged for long term storage. Printed circuit boards shall be provided in separate anti-static containers.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Basis-of-Design Product: Square D AccuSine+ by Schneider Electric.
- B. Acceptable Products: AHFs specified herein shall be the product of a single manufacturer.

2.2 SYSTEM REQUIREMENTS

- A. Performance Requirements:
  - 1. General: Active harmonic filters shall be defined as a power electronic device consisting of power semiconductors known as insulated gate bipolar transistors (IGBT) that switch into the AC lines to modulate its output to mitigate detrimental harmonic current; correct the displaced reactive current (leading or lagging); and balance the current (also known as negative sequence current) for the power source.
    - a. Converter design shall be a three-level design to optimize performance and minimize heat losses.
  - 2. The AHF shall provide the following performance per the basis of design sizing calculation method for non-linear loads each with a minimum impedance of 3%.

- a. THD(v) shall be limited to not more than 5 percent as contributed by the loads at the location of each AHF. A THD(v) set point is to be used to optimize performance of the AHF and maintain the 5% THD(v) set point.
  - b. THD(i) shall be limited to 3% or less as long as AHF is 50% or more loaded and all nonlinear loads have 3% or larger input impedance at the rectifier. A THD(i) set point may be set to optimize THD(i) performance.
  - c. Displacement power factor (PF) shall be corrected to 0.95 or better at the location of each AHF.
    - 1) Displacement PF shall never go leading due to AHF performance or design.
    - 2) AHF shall have a set point entry to maintain objective.
    - 3) AHF shall have optimized displacement correction. This energy saving feature will not attempt to over correct the PF closer to unity than the set point or cross over unity for leading PF.
  - d. AHF shall provide negative sequence current correction to source current imbalance not more than 2% phase-to-phase after correction.
- B. Service Conditions: Active harmonic filter shall be suitable for the following conditions:
1. Operating Ambient Temperature Range
    - a. Wall Mount Units rated 300A: 32°F (0 °C) to 104 °F (40 °C) maximum.
    - b. AHFs shall allow for temperature derating up to a 50°C (134°F) maximum ambient temperature. The AHF shall be derated per the manufacture to meet environmental conditions of the installed location.
  2. Humidity: to 95 percent, non-condensing.

### 2.3 EQUIPMENT SIZE/RATINGS

- A. Active harmonic filter (AHF) shall be capable of operating with an input voltage of 380 volts AC to 480 volts AC, +10%, -15% at each nominal voltage.
- B. AHF shall be capable of operating at an AC supply frequency of 50 Hz or 60 Hz, +/- 3 Hz.
- C. AHF shall be phase rotation insensitive. AHF shall detect phase rotation and align output accordingly.
- D. AHF heat losses shall not exceed more than 3 percent of the unit kVAR rating.
- E. AHF amperage output ratings shall be 300 amperes.
  1. Refer to Drawings for actual ratings required.
  2. AHF that shut off the nonlinear loads (i.e. VFD, VSD, etc.) when AHF faulted is not acceptable.
- F. rated at 200,000 AIC (amperes of interrupt capacity) at rated voltage up to 480 VAC.
- G. An energy saving feature shall be provided to permit stopping AHF when load goes below a desired set point (10% factory setting) and turn on at some higher set point (15% factory setting)
- H. Safety features include a dead front design where upon opening the enclosure door on floor standing units. Extreme measures must be taken to bypass this safety dead front design. To perform service the enclosure door should never be opened without locking out the upstream feeder breaker.
  1. Incoming power shall be connected to the input circuit breaker within a power cable entry plenum. Once cable installation is complete and plenum covers are re-installed there shall be no access to incoming cabling.
- I. A service port shall be provided in the front cover of each unit chassis (IP00) such that with power disconnected a USB connection from a laptop computer may examine past performance and review all parameter set points and the event log. This may be used for commissioning or service.

## 2.4 ACTIVE HARMONIC FILTER UNIT

- A. Enclosure: Provisions shall be made for locking disconnects in the off position. Provisions for additional padlocking shall be made by the Owner using an approved lockout/tag-out device.
1. AHF shall be provided in IP00 or IP20 wall mount enclosure with bottom cable entry. A remote disconnect shall be provided by others.
- B. Function of AHF:
1. AHF shall monitor the total current of the loads under review utilizing two CT mounted on the supply AC lines for all three phase loads and all AHF. If phase to neutral loads are connected (four wire system), three CT shall be required.
    - a. AHF shall analyze the content of the supply current for harmonics from the 2nd to the 51st harmonic and shall determine the reactive current content representing displacement power factor and current balancing.
      - 1) AHF shall inject cancellation for every harmonic order from 2nd to 51th order. AHF with designs to inject less than all harmonic orders is unacceptable.
      - 2) To insure optimum system performance, all nonlinear loads shall have input line reactors that are rated 3 percent or higher impedance (inductance).
      - 3) AHF shall include an option to achieve optimized PF correction. Optimized PF correction is designed to prevent correction when the system PF is better (closer to unity) than the programmed PF set point. Any AHF that reduces the system PF to attain a reduced set point is unacceptable.
    - b. AHF shall provide field selection as harmonic filter, reactive current correction, or supply current balancing or any combination of the three modes. All modes shall be required for this project.
  2. AHF shall provide for current balancing of AC supply for harmonic and reactive currents regardless of actual load distribution per phase.
  3. AHF shall have up to 30 seconds of logic ride thru in the event of power loss.
  4. AHF shall be designed with a current limiting function to protect the IGBT.
    - a. When the current limit level is attained on any harmonic order, a message shall be displayed indicating the output capacity is operating at maximum capacity.
    - b. Operation shall continue indefinitely at this reduced level without trip or degradation of AHF.
  5. AHF shall have automatic restart capability upon power loss return and fault resets.
    - a. Fault trip limit shall occur after five restarts within a 5 minute period and provide positive shut down and notice thereof.
  6. Upon occurrence of the fault trip limit, AHF shall stop output current production and lock out restart until the fault is manually cleared.
  7. AHF shall incorporate an over temperature output roll back that shall reduce the total output current to reduce power component heating in order to maintain maximum current correction at the elevated temperatures within the electrical system.
    - a. AHF shall monitor the incoming air temperature and invoke a hard trip of the unit at 124°F (51°C).
    - b. Cooling Architecture: Separate cooling arrangement shall be made for the heat sinks. The clean and dry air intake for PCB's should not mix with the air for the heat sinks. The heat sinks shall be mounted in a separate plenum.
  8. AHF shall be compatible with SPD, EMC filters, SCR (thyristor) snubber circuits, and switched mode power supplies (SMPS).
- C. Operator Interface:

1. AHF shall have a door mounted human machine interface (HMI) with touch screen control rated IP65, dust tight and liquid resistant.
2. HMI shall provide run/stop control from every screen.
3. HMI shall provide an oscilloscope feature to display specific parameters.
  - a. Three sets of data may be monitored at a time. Up to twenty predefined parameters can be chosen for each curve.
  - b. Performance trend curves shall be displayed for load total RMS current, load RMS harmonic current per phase, AHF harmonic current output per phase, AC mains voltage per phase, THDi, TDD, load RMS reactive current, and AHF RMS reactive current output.
  - c. Bar graphs shall be provided for display of the mains and load harmonic current amplitudes per harmonic order.
  - d. Selected internal curves shall be provided for diagnostic and performance checks
4. HMI shall display operating and setup parameters and event/fault messages in plain English, no cryptic codes or symbols are permitted on the display.
  - a. HMI shall display the mains voltage and CT current.
  - b. Parameter adjustment shall be made via HMI and shall be password protected.
  - c. HMI shall record and display an event log with time and date stamp. Event log shall be cleared via the stop function or power-off. A minimum of 100 events shall be stored.
5. HMI shall provide external communications via an RJ45 connectors.
  - a. Modbus TCP/IP shall provide remote run/stop and display of operating parameters, set up parameters and diagnostic functions.
6. HMI shall have a safety feature that shall lock out all other forms of control during service and commissioning.
  - a. After 15 minutes of non-use the lockout shall clear and control functions shall revert to full functionality and remote control capability.
7. HMI shall display a flashing warning screen in the event of a fault.
8. HMI shall download pertinent parameters to a USB memory device to permit remote diagnostic evaluations and to save unit set up parameters.
9. HMI shall include, but shall not be limited to, an on-board commissioning guide with automatic detection features.
  - a. AHF shall automatically check for proper AC line phase rotation. No specific phase rotation is required.
  - b. AHF shall automatically test for CT phase rotation and polarity. If installation is incorrect, AHF shall be able to rotate and reorient CT's through its own logic calculation. If proper alignment cannot be achieved, a fault warning and lockout of operation shall occur.
  - c. AHF shall automatically calibrate the CT for optimum harmonic cancellation performance.
  - d. AHF shall perform at full capacity for a period of 15 minutes to validate components meet temperature performance requirements in the installed location.
  - e. In the event, any of the above cannot be reconciled, HMI shall lock out AHF function until commissioning agent corrects, verifies, and clears each test.

## 2.5 EXTERNAL CURRENT TRANSFORMER

- A. Split core type current transformers shall be installed as defined herein and as shown on the Electrical Drawings.
  1. Primary current ratings of the CT shall be according to full load current rating of the circuit on which installed.

2. Current transformer ratio shall be as shown on the electrical on-line drawings. Secondary rating shall be 1 or 5 amperes.
3. Current transformers rated for 50-60 hertz shall be used.
4. Class 1 (or better) accuracy shall be provided.

## 2.6 MARKINGS AND LABELING

- A. All identification and warning labels and nameplates exterior to the AHF shall be resistant to weather, UV, and their intended installation environment.
- B. Each AHF shall be provided with an engraved nameplate identifying the project specific equipment tag and service description.
- C. Warning labels and nameplates shall be present at access locations to advise personnel of possible hazards. The AHF shall be marked in accordance with UL, NFPA 70 NEC, NFPA 70E, and other applicable standards.

## PART 3 - EXECUTION

### 3.1 GENERAL

- A. In addition to the requirements specified herein, execution shall be in accordance with the requirements of Specification and Drawings.
- B. Examine equipment exterior and interior prior to installation. Report any damage and do not install any equipment that is structurally, moisture, or mildew damaged.
- C. Verification of Conditions: Examine areas and conditions under which the work is to be installed, and notify the Contractor in writing, with a copy to the Owner and the Engineer, of any conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected.
- D. Beginning of the work shall indicate acceptance of the areas and conditions as satisfactory by the Installer.
- E. Install equipment in accordance with reviewed product data, final shop drawings, manufacturer's written instructions and recommendations, and as indicated on the Drawings.
- F. Provide final protection and maintain conditions in a manner acceptable to the manufacturer that shall help ensure that the equipment is without damage at time of Substantial Completion.

### 3.2 FACTORY ACCEPTANCE TESTING [NOT USED]

- A. Prior to shipment, the original equipment manufacturer shall fully test the performance at full current and voltage while functioning as a harmonic correction device to assure compliance as specified herein at their manufacturing facility.
  1. A certified test report shall be provided to the Owner.

### 3.3 TRAINING

- A. The Supplier shall provide on-site training. The training shall include, but shall not be limited to, instruction on assembly and major components. The training sessions shall be designed for maintenance and operations personnel with training that is specific to the system installed at the Owner's facility. Training shall include, but shall not be limited to, troubleshooting and maintenance of the medium voltage drives installed. Training session duration shall



be sufficient to adequately cover the topics listed. Manuals and documentation shall be provided to each participant. At a minimum, the training shall cover the following topics:

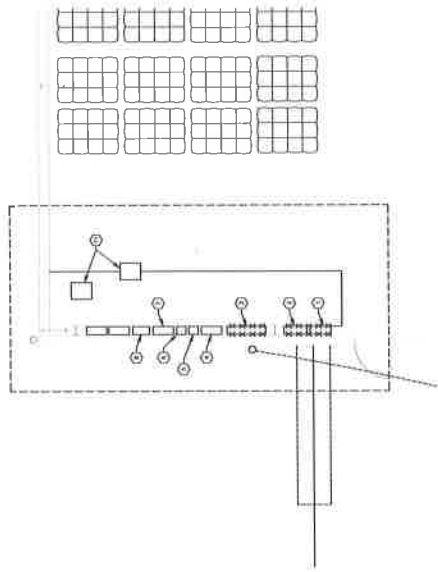
1. Theory of operation
  2. Key operations
  3. Cooling system requirements
  4. Operator interfaces
  5. Printed circuit board maintenance and replacement
  6. Power device maintenance and replacement
  7. Preventative maintenance routines
- B. The Contractor shall provide on-site training consisting of one] scheduled session for a class of 8 Owner's staff a period of not less than 2 hours.

#### 3.4 FUNCTIONAL DEMONSTRATION TESTING

- A. Functional testing, commissioning, and first parameter adjusting shall be carried out by a factory trained manufacturer's representative field service engineer. Test and adjust controls and safeties. Replace damaged or malfunctioning controls and equipment. Report to the Engineer any discrepancies or issues with the installation.
- B. The Contractor shall certify in writing prior to scheduling functional demonstration testing that the equipment has been installed, adjusted, and tested in accordance with the manufacturer's recommendations and is ready for operation.
- C. The Contractor shall demonstrate the functional and operational features of the active harmonic filter with the harmonic power sources used in sizing the AHF in operation.

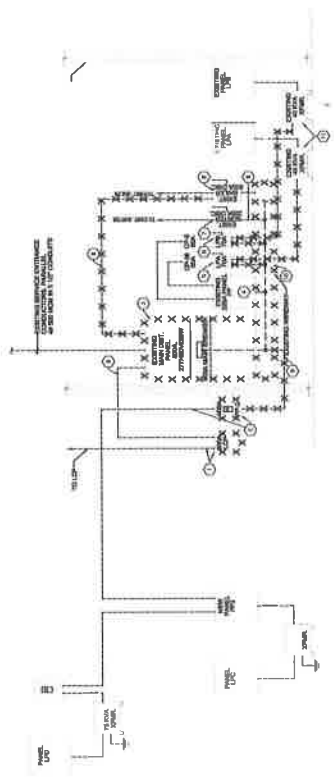
END OF SECTION 26 3526



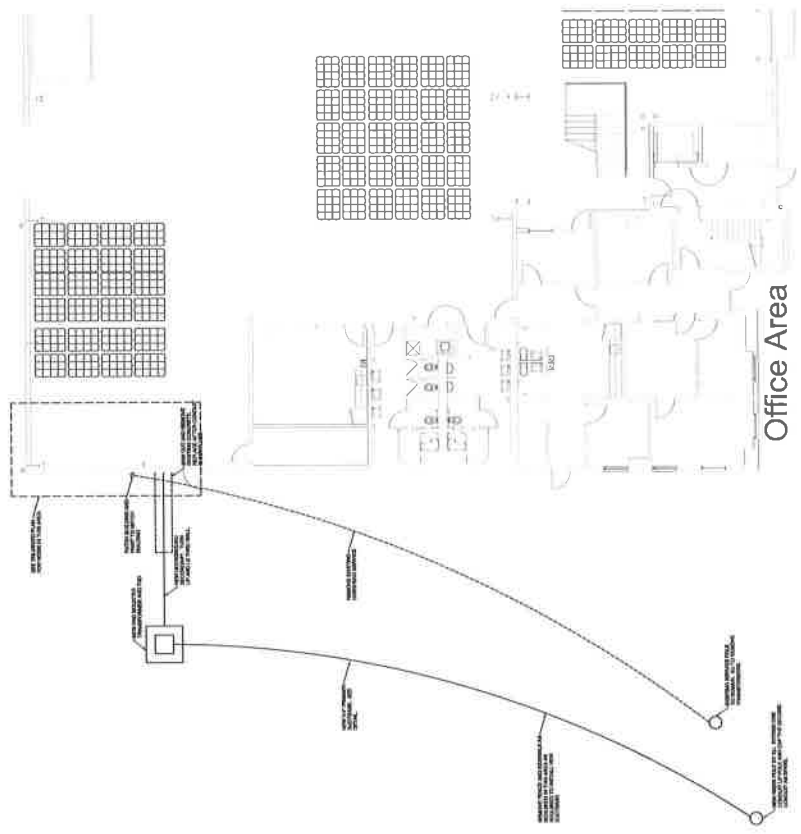


**ENLARGED ELECTRICAL ROOM - DEMOLITION**  
SCALE: 1/4" = 1'-0"

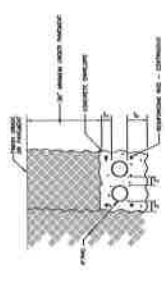
- REMOVE FROM ROOM:**
1. REMOVE ALL ELECTRICAL EQUIPMENT FROM THE ROOM.
  2. REMOVE ALL ELECTRICAL WIRING FROM THE ROOM.
  3. REMOVE ALL ELECTRICAL CONDUIT FROM THE ROOM.
  4. REMOVE ALL ELECTRICAL PANELS FROM THE ROOM.
  5. REMOVE ALL ELECTRICAL TRAYS FROM THE ROOM.
  6. REMOVE ALL ELECTRICAL RACKS FROM THE ROOM.
  7. REMOVE ALL ELECTRICAL CABLES FROM THE ROOM.
  8. REMOVE ALL ELECTRICAL BATTERIES FROM THE ROOM.
  9. REMOVE ALL ELECTRICAL TRANSFORMERS FROM THE ROOM.
  10. REMOVE ALL ELECTRICAL MOUNTING BRACKETS FROM THE ROOM.
  11. REMOVE ALL ELECTRICAL FLOOR MOUNTING FROM THE ROOM.



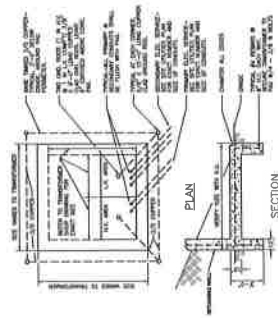
**ELECTRICAL RISER DIAGRAM - DEMOLITION**  
SCALE: 1/4" = 1'-0"



**Office Area**  
PARTIAL FLOOR PLAN  
SCALE: 1/4" = 1'-0"



**TYPICAL PRIMARY DUCT BANK CONDUIT INSTALLATION DETAIL**  
SCALE: 1/4" = 1'-0"



**TRANSFORMER PAD DETAIL**  
SCALE: 1/4" = 1'-0"

**DEMOLITION WORK PLANS**

PROJECT NO.	17-0000
DATE	08/11/2017
DESIGNED BY	SPRINGS & FISHER
CHECKED BY	SPRINGS & FISHER
SCALE	AS SHOWN
PROJECT LOCATION	1000 THOMPSON ROAD ST. LOUIS, MO 63104
OWNER	CHRYSLER FINANCIAL GROUP

**NOTES:**

1. ALL DEMOLITION WORK SHALL BE IN ACCORDANCE WITH THE CITY OF ST. LOUIS, MISSOURI, DEPARTMENT OF PUBLIC WORKS, DIVISION OF PUBLIC UTILITIES, AND THE MISSOURI DEPARTMENT OF REVENUE, DIVISION OF SAFETY.
2. ALL DEMOLITION WORK SHALL BE IN ACCORDANCE WITH THE CITY OF ST. LOUIS, MISSOURI, DEPARTMENT OF PUBLIC WORKS, DIVISION OF PUBLIC UTILITIES, AND THE MISSOURI DEPARTMENT OF REVENUE, DIVISION OF SAFETY.
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