

**IMPROVEMENTS TO
MUNICIPAL ELECTRIC SYSTEM
OF THE
CITY OF DOVER, OHIO**

PROJECT MANUAL
FOR
CONTRACT NO. 024-02083-00 – NORTH END POWERLINE EXTENSION
FEBRUARY 2025

MEMBERS OF BOARD OF CONTROL

Shane Gunnoe, Mayor
Dave Douglas, Service Director
Robert Everett, Safety Director
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Prepared by:



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ADVERTISEMENT FOR BIDS
FOR
IMPROVEMENTS TO
THE MUNICIPAL ELECTRIC SYSTEM
FOR
CITY OF DOVER, OHIO

1. NOTICE OF RECEIPT OF BIDS

Sealed bids will be received by the Service Director of the City of Dover, Ohio, located at the Municipal Building, 116 East Third Street Rear, Dover, Ohio 44622 until 10 a.m. local time, on March 24, 2025 and at that time will be publicly opened and read aloud for:

CONTRACT NO. 024-02083-00 – NORTH END POWERLINE EXTENSION

For the furnishing of all labor, specified materials, apparatus, expendable tools and equipment, and all other services required for the construction of one (1) 15 kV pole line associated with improvements to the Municipal Electric System of the City of Dover, Ohio. The base bid consists of the construction/rebuild of approximately 1.7 miles of pole line along with the relocation of existing secondary circuits. The new 15 kV dedicated pole line distribution circuit route will be from the North Intertie Substation to the new plant site located south of Crown Road Northwest and west of North Wooster Avenue. A portion of the dedicated distribution circuit will be an overbuild modification of a pole line that contains either one or two existing distribution circuit lines. Existing distribution conductors and secondary circuits will be relocated to the new poles. The existing poles will have all the circuit hardware removed. The existing poles will be topped immediately above the existing communication/fiber circuits as part of the scope of work. Replacement and new pole line sections are shown in detail on the associated drawings which describes the scope of work for the improvements to the Municipal Electric System of the City of Dover, Ohio.

The Contract Documents may be reviewed at the office of the Service Director, located at the Municipal Building, 116 East Third Street Rear, Dover, Ohio 44622. Copies may be obtained by contacting the offices of the Engineer, SSOE Group 1001 Madison Ave, Toledo, Ohio 43604. To obtain an official set of documents and become a Registered Bidder you must contact Sonia Wood at sawood@ssoe.com. For technical questions please contact Joe Hulderman at jhulderman@ssoe.com or Jeremy Tausch at jtausch@ssoe.com.

2. GENERAL BID REQUIREMENTS

To be responsive, all bids must include all equipment, apparatus, materials and Work necessary to be in strict conformance with the Contract Documents.

3. REJECTION OF BIDS

The City of Dover, Ohio expressly reserves the right to reject any or all bids, to judge the character and sufficiency of the Work offered by the bidders, and to judge the ability of any bidder to perform the Work in a proper manner.

4. EFFECTIVE PERIOD OF BIDS

No bidder may withdraw his bid for a period of ninety (90) days from the date of opening thereof.

5. BONDING REQUIREMENTS

A Bid Bond executed by the bidder and a surety company in an amount equal to Ten Percent (10%) of the aggregate amount of the bid shall be submitted with each bid. In lieu of such bond, a certified check in the amount equal to that required in such bond, payable to City of Dover, Ohio may be submitted.

6. PRE-BID MEETING

There is no mandatory pre-bid meeting for bidding this Contract. If you have any questions in regards to this Contract, contact SSOE engineers Joe Hulderman at (567) 218-2549 or Jeremy Tausch at (330) 248-7567. Bidders may contact either Charlie Stull or Bill Abel at 330-447-7069 to schedule a site visit.

CITY OF DOVER, OHIO

Dave Douglas
Service Director

INSTRUCTIONS TO BIDDERS

1. DEFINED TERMS

Terms used in these Instructions to Bidders which are defined in the Procurement/Construction General Conditions of the Contract have the meanings assigned to them in the Procurement/Construction General Conditions.

Certain additional terms used in these Instructions to Bidders have the meanings indicated below which are applicable to both the singular and plural thereof.

1.1. BIDDER

One who submits a Bid directly to OWNER as distinct from a subbidder, who submits a bid to a Bidder.

1.2 SUCCESSFUL BIDDER

The lowest, responsible, and responsive Bidder to whom OWNER (on the basis of OWNER's evaluation as hereinafter provided) makes an award.

2. COPIES OF BIDDING DOCUMENTS

2.1 Complete sets of Bidding Documents must be used in preparing Bids; neither OWNER nor ENGINEER assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

2.2 OWNER and ENGINEER in making copies of Bidding Documents available do so only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

3. QUALIFICATIONS OF BIDDERS

To demonstrate qualifications to perform the Work, each Bidder must submit additional detailed written evidence such as financial data, previous experience, present commitments and other such data as may be called for below (or in the Supplementary Instructions, if any). If required by the state or local governing authority, "each bid must contain evidence of Bidder's qualifications to do business in the state where the Project is located or covenant to obtain such qualification prior to award of the Contract."

If the Bidder is a foreign corporation, i.e. not incorporated under the laws of Ohio, a Certificate of Good Standing from the Secretary of State showing the right of the Bidder to do business in the State; or, if the Bidder is a person or partnership, the Bidder has filed with the Secretary of State a Power of Attorney designating the Secretary of State as the Bidder's agent for the purpose of accepting service of summons in any action brought under Section 153.05, ORC, or under Sections 4123.01 to 4123.94, inclusive, ORC.

4. EXAMINATION OF CONTRACT DOCUMENTS AND SITE

- 4.1 It is the responsibility of each Bidder before submitting a Bid:
- 4.1.1 To examine thoroughly the Contract Documents and other related data identified in the Bidding Documents (including "technical data" referred to below):
 - 4.1.2 To visit the site to become familiar with and satisfy Bidder as to the general, local and site conditions that may affect cost, progress, performance, or furnishing of the Work;
 - 4.1.3 To consider federal, state, and local Laws and Regulations that may affect cost, progress, performance or furnishing of the Work;
 - 4.1.4 To study and carefully correlate Bidder's knowledge and observations with the Contract Documents and such other related data; and
 - 4.1.5 To promptly notify ENGINEER of all conflicts, errors, ambiguities or discrepancies which Bidder has discovered in or between the Contract Documents and such other related documents.
- 4.2 Reference is made to the Contract Documents for the following information:
- 4.2.1 Appendix 1 – Construction Drawing Set
- 4.3 Before submitting a Bid each Bidder will be responsible to obtain such additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions at or contiguous to the site or otherwise, which may affect cost, progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences or procedures of construction to be employed by Bidder and safety precautions and programs incident thereto or 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.
- 4.4 On request, OWNER will provide each Bidder access to the site to conduct such examinations, investigations, explorations, tests, and studies as each Bidder deems necessary for submissions of a Bid. Bidder must fill all holes and clean up and restore the site to its former conditions upon completion of such explorations, investigations, tests, and studies.
- 4.5 Reference is made to the Contract Documents for the identification of the general nature of work that is to be performed at the site by OWNER or others (such as utilities and other prime contractors) that relates to the work for which a Bid is to be submitted. On request, OWNER will provide to each Bidder for examination access to or copies of Contract Documents (other than portions thereof related to price) for such Work.
- 4.6 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that

without exception the Bid is premised upon performing and furnishing the Work required by the Contract Documents and applying the specific means, methods, techniques, sequences or procedures of construction (if any) that may be shown or indicated or expressly required by the Contract Documents, that Bidder has given ENGINEER written notice of all conflicts, errors, ambiguities and discrepancies that Bidder has discovered in the Contract Documents and the written resolutions thereof by ENGINEER is acceptable to Bidder, and that the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

5. AVAILABILITY OF LANDS FOR WORK, ETC.

The lands upon which the Work is to be performed, rights-of-way and easements for access thereto and other lands designated for use by CONTRACTOR in performing the Work are identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by CONTRACTOR. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by OWNER unless otherwise provided in the Contract Documents.

6. INTERPRETATIONS AND ADDENDA

6.1 All questions about the meaning or intent of the Bidding Documents are to be directed to ENGINEER in writing. Interpretations or clarifications considered necessary by ENGINEER in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by ENGINEER as having received the Bidding Documents. Questions received less than ten (10) days prior to the date for opening of Bids may not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

6.2 Addenda may also be issued to modify the Bidding Documents as deemed advisable by OWNER or ENGINEER.

7. BID SECURITY

Each bid shall be accompanied by a bond executed by the Bidder and by a surety company meeting the requirements of Paragraph 4.1 of the Procurement General Conditions, in an amount not less than Ten Percent (10%) of the aggregate amount of the Bid; or the Bidder may submit with the Bid, in lieu of such bond, a certified check on a solvent bank, payable to the City of Dover, Ohio, in an amount equal to that required in such bond. Said bond or certified check is required as a guarantee that should said Bid be accepted by the OWNER, the Bidder will, within ten (10) days from the time he has been notified of the acceptance of the same, enter into Contract with the OWNER. In case a bid is not accepted, the obligation of the Bid Bond shall be null and void. Where applicable, the certified check tendered with the bid shall be returned to the Bidder.

In case a bid is accepted and the Bidder does enter into the Contract agreement with the OWNER for the project within ten (10) days from the time he has been notified of the acceptance of the same, and does furnish a Contract Performance Bond as required, then

the obligation of the Bid Bond shall be null and void, and the certified check (where applicable) shall be returned to the Bidder.

In case a bid is accepted and the Bidder refuses or neglects to enter into the Contract agreement with the OWNER for the project, within ten (10) days from the time he has been notified of the acceptance of same, and/or fails to furnish a Contract Performance bond as required, then the obligation of the Bid Bond shall remain in full force and effect and said certified check (where applicable) shall be forfeited to the OWNER for damages. Notwithstanding the above, the OWNER retains all rights the OWNER may have arising out of the Bidder's failure to enter into the Contract agreement.

8. CONTRACT TIMES

The number of days within which, or the dates by which, the Work is to be completed and ready for final payment (the term "Contract Times" is defined in Article 1 of the Procurement General Conditions) are set forth in the Agreement (or incorporated therein by reference to the attached Bid Form).

9. LIQUIDATED DAMAGES

Provisions for liquidated damages, if any, are set forth in the Agreement.

10. SUBSTITUTE AND "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 CONTRACTOR if acceptable to ENGINEER, application for such acceptance will not be considered by ENGINEER until after the Effective Date of the Agreement. The procedure for submission of any such application by CONTRACTOR and consideration by ENGINEER is set forth in Paragraphs 7.3, 7.3.1 and 7.3.2 of the Procurement General Conditions and may be supplemented in the technical specifications.

11. SUBCONTRACTORS, SUPPLIERS, AND OTHERS

11.1 If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers and other persons and organizations (including those who are to furnish the principal items of material and equipment) to be submitted to OWNER in advance of a specified date prior to the Effective Date of the Agreement, apparent Successful Bidder, and any other Bidder so requested, shall within five (5) days after Bid opening submit to OWNER a list of all such Subcontractors, Suppliers, and other persons and organizations proposed for those portions of the Work for which such identification is required. Such list shall be accomplished by an experience statement with pertinent information regarding similar projects and other evidence or qualification for each such Subcontractor, Supplier, person or organization if requested by OWNER. An OWNER or ENGINEER who after due investigation has reasonable objection to any proposed Subcontractor, Supplier, other person or organization, may before the Notice of Award is given request apparent Successful Bidder to submit an acceptable substitute without an increase in Bid price.

If apparent Successful Bidder declines to make any such substitution, OWNER may award the Contract to another Bidder that proposes to use acceptable Subcontractors, Suppliers, and other persons and organizations. The declining to make requested substitutions will not constitute grounds for sacrificing the Bid security of any Bidder. Any Subcontractor, Supplier, other person or organization listed and to whom OWNER or ENGINEER does not make written objection prior to the giving of the Notice of Award will be deemed acceptable to OWNER and ENGINEER subject to revocation. Such revocation will be based on reasonable objection after due investigation after which the Contractor shall submit an acceptable substitute. The Contract Price will be adjusted by the difference in the cost associated with the substitution and an appropriate change order will be issued.

- 11.2 No CONTRACTOR shall be required to employ any Subcontractor, Supplier, other person or organization against whom CONTRACTOR has reasonable objection.

12. BID FORM

- 12.1 All blanks in the Bid Form must be completed by printing in black ink or by typewriter.
- 12.2 Bids by corporations must be executed in the corporate name by the president or a vice-president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal must be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation must be shown below the signature.
- 12.3 Bids by partnerships must be executed in the partnership name and signed by a partner, whose title must appear under the signature and the official address of the partnership must be shown below the signature.
- 12.4 All names must be typed or printed in black ink below the signature.
- 12.5 The Bid shall contain an acknowledgement of receipt of all Addenda (the numbers of which must be filled in on the Bid Form.)
- 12.6 The address and telephone number for communications regarding the Bid must be shown.
- 12.7 Evidence of authority to conduct business as an out-of-state corporation in the state where the Work is to be performed shall be provided in accordance with Paragraph 3 above. State contractor license number, if any must also be shown.
- 12.8 In addition to the items listed above in this Article 12, each Bidder must submit the following documents with its Bid:
- A. Bid Bond Form.
 - B. Proposal Form.
 - C. Bidder's Affirmative Action Program, if any.

- D. Documentation evidencing bidder's compliance with the OWNER, Affirmative Action legislation and policies (where applicable).
- E. Documentation verifying proposal pricing is in conformance with federal and/or state prevailing wage requirements (if applicable).

13. SUBMISSION OF BIDS

Bids shall be submitted in triplicate at the time and place indicated in the Advertisement for Bids and shall be enclosed in an opaque sealed envelope, marked with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted) and name and address of Bidder and accompanied by the Bid security and other required documents. If the Bid is sent through the mail or other delivery system, the sealed envelope shall be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face of it.

14. BID PRICES

The Bid Forms provide for the statement of the Bid prices for performance of the Work. All prices shall be firm and final for the duration of the Work.

In the event that the Bidder can make a Bid subject to price adjustment provisions, which, in the opinion of the Bidder, will result in a lower cost to the OWNER than the cost under a firm Bid that he would make, as provided in the Bid Form, he may make such consideration under the following conditions:

- A. That such Bid or Bids, shall be made on the Bid forms accompanying the Contract Documents and shall be noted by the Bidder, "Subject to Price Adjustment Provisions" or words of similar meaning.
- B. That such "Price Adjustment Provisions" shall accompany the Bid or Bids and shall be properly marked to identify them as part of the particular Bid to which they apply.
- C. That the prices Bid shall be based upon current costs required to complete the Work.
- D. That any price adjustment provisions submitted by the Bidder shall be based upon the occurrence of contingencies subsequent to the date of the Bid or Bids, and outside of the direct control of either of the contracting parties.
- E. That such price adjustment provisions, submitted by the Bidder, provide a means to determine any increase or decrease in the Contract price.
- F. That the proportion or amount of the Bid prices affected by the application of the price adjustment provisions be clearly stated.
- G. That the method of application of the price adjustment provisions be clearly stated.
- H. That such price adjustment provisions provide for downward, as well as upward adjustment of the Contract prices, in order that mutuality of benefit may be held by both contracting parties.

- I. That the price adjustment provisions shall, preferably, provide for maximum prices, and if so, then also minimum prices beyond which the price adjustment provisions shall be of no further effect in causing price increase or decrease.

15. MODIFICATIONS AND WITHDRAWAL OF BIDS

- 15.1 Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of bids.
- 15.2 If, within twenty-four (24) hours after Bids are opened, any Bidder who files a duly signed, written notice with OWNER and promptly thereafter demonstrates to the reasonable satisfaction of the OWNER that there was a material and substantial mistake in the preparation of its Bid, that the Bidder may withdraw its Bid and the Bid security will be returned. Thereafter, that Bidder will be disqualified from further bidding on the Work to be provided under the Contract Documents.

16. OPENING OF BIDS

Bids will be opened and (unless obviously non-responsive) read aloud publicly.

17. EFFECTIVE PERIOD OF BIDS

No bidder may withdraw his bid for a period of ninety (90) days from the date of opening thereof.

18. AWARD OF CONTRACT

- 18.1 OWNER reserves the right to reject any or all Bids, including without limitation the rights to reject any or all nonconforming, non-responsive, unbalanced or conditional Bids and to reject the Bid of any Bidder if OWNER believes that it would not be in the best interest of the Project to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by OWNER. OWNER also reserves the right to waive all informalities not involving price, time or changes in the Work and to negotiate Contract terms with the Successful Bidder. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.
- 18.2 In evaluating Bids, OWNER will consider the qualifications of Bidders, whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.
- 18.3 OWNER may consider the qualifications and experience of Subcontractors, Suppliers and other persons and organizations proposed for those portions of the Work as to which the identity of Subcontractors, Suppliers, and other

persons and organizations must be submitted as provided in the Bid Form and/or Supplementary Conditions. OWNER also may consider the operating costs, maintenance requirements, performance data and guarantees of major items of materials and equipment proposed for incorporation in the Work when such data is required to be submitted prior to the Notice of Award.

18.4 OWNER may conduct such investigations as OWNER deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to OWNER's satisfaction within the prescribed time.

18.5 If the Contract is to be awarded, it will be awarded to lowest best responsive and responsible Bidder whose evaluation by OWNER indicates to OWNER that the award will be in the best interests of the Project.

18.6 If the Contract is to be awarded, OWNER will give Successful Bidder a Notice of Award.

19. CONTRACT SECURITY

Paragraph 4.1 of the Procurement General Conditions and the Supplementary Conditions set forth OWNER's requirements with regard to Bonds. When the Successful Bidder delivers the executed Agreement to OWNER, it must be accompanied by the required Bonds.

20. SIGNING OF AGREEMENT

When the 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 (10) days thereafter CONTRACTOR shall sign and deliver the required number of counterparts of the Agreement and attached documents to OWNER with the required Bonds. OWNER will deliver one (1) fully signed counterpart to CONTRACTOR.

21. SITE VISITS

Bidders may contact either Charlie Stull or Bill Abel at 330-447-7069 to schedule a site visit.

22. AUTHORIZATION OF WORK

The Work being bid is authorized under City of Dover Ordinance No. 16-24

BID FORM

TO: THE CITY OF DOVER, OHIO

COMMERCIAL BID

The undersigned, as bidder, declares that the following bid is for:

CONTRACT NO. 024-02083-00 NORTH END POWERLINE EXTENSION

These specifications cover the furnishing of all labor, specified materials, apparatus, expendable tools and equipment, and all other services required for the construction of one (1) 15 kV pole line associated with improvements to the Municipal Electric System of the City of Dover, Ohio. The base bid consists of the construction/rebuild of approximately 1.7 miles of pole line along with the relocation of existing secondary circuits. The new 15 kV dedicated pole line distribution circuit route will be from the North Intertie Substation to the new plant site located south of Crown Road Northwest and west of North Wooster Avenue. A portion of the dedicated distribution circuit will be an overbuild modification of a pole line that contains either one or two existing distribution circuit lines. Existing distribution conductors and secondary circuits will be relocated to the new poles. The existing poles will have all the circuit hardware removed. The existing poles will be topped immediately above the existing communication/fiber circuits as part of the scope of work. Replacement and new pole line sections are shown in detail on the associated drawings which describes the scope of work for the improvements to the Municipal Electric System of the City of Dover, Ohio.

KNOWLEDGE OF CONTRACT DOCUMENTS

The undersigned does hereby declare that he has familiarized himself with the Contract Documents which include:

- Advertisement for Bids
- Instruction to Bidders
- Bid Form
- Bond Forms
- Affidavits and other forms provided with the Bidding Documents.
- Agreement
- Specifications and Drawings
- Terms and Conditions of the Contract

VISIT TO SITE

On contracts requiring construction work at the site, the undersigned does hereby declare that he has examined and acquainted himself with the general conditions likely to be encountered and that he has visited the site of the Work.

ACKNOWLEDGMENT

The undersigned does hereby declare that he will contract to perform everything required to be performed and to provide and furnish all Work, material and apparatus, tools and labor and all other services required for the design, fabrication, delivery and erection as called for by the Contract Documents, in the manner therein prescribed and in accordance with the requirements of the City of Dover, Ohio and the ENGINEER, as therein provided and that he will accept in full payment therefore the bid price or consideration set against each item of the following schedule.

In submitting this bid it is understood that the right is reserved by the City of Dover, Ohio to reject any or all bids. It is agreed that this bid may not be withdrawn for a period of ninety (90) days from the date of opening thereof.

THE FOLLOWING DATA SHEETS MUST BE FILLED OUT TO THE RIGHT OF THE TRIM LINE -
ANY WRITING TO THE LEFT OF THE TRIM LINE (TL) WILL NOT BE ACKNOWLEDGED

BID FORM SHALL NOT BE ENLARGED OR REDUCED

BIDDER'S NAME:
ADDRESS:

TELEPHONE NUMBER:

Addenda Nos. Received:

1 - BASE BID

LABOR

Price for Labor in Words

_____ DOLLARS

_____ CENTS

Price for Labor in Figures

\$ _____

MATERIAL

Price for Material in Words

_____ DOLLARS

_____ CENTS

Price for Material in Figures

\$ _____

FIELD SUPPORT

Price for Labor in Words

_____ DOLLARS

_____ CENTS

Price for Labor in Figures

\$ _____

TOTAL BASE BID

Total Price for Labor and Materials in Words

_____ DOLLARS

_____ CENTS

Total Price for Labor and Materials in Figures

\$ _____

TL

BIDDER'S NAME:

2 - ALTERNATES TO BASE BID

Alternate ONE IS MANDATORY SHALL BE PROVIDED

Any additional Alternates, if offered, should be enumerated and identified in the space provided below:

Description:

DELETION OF ONE POLE AND ONE 145 FOOT LENGTH OF THREE PHASE OF OVERHEAD CONDUCTOR

Alternate No. 1

Change in base bid price:

\$ _____ (ADD)
\$ _____ (DEDUCT)

Description:

Alternate No. _____

Change in base bid price:

\$ _____ (ADD)
\$ _____ (DEDUCT)

Description:

Alternate No. _____

Change in base bid price:

\$ _____ (ADD)
\$ _____ (DEDUCT)

BIDDER'S NAME:

Description:

Alternate No. _____

Change in base bid price:

\$ _____ (ADD)

\$ _____ (DEDUCT)

3 - PRICE

The bid prices stated above are firm and fixed through completion of the Work.

4 - SECURITY FOR BID

Accompanying this bid is a Bid Bond or a Certified Check in the amount of:

\$ _____ Dollars

_____ Bid Bond

_____ Certified Check

5 - SCHEDULING DATA

5.1 SCHEDULE FOR DRAWING SUBMITTAL

Dimensional outline drawings with equipment weights will be submitted to the Engineer for review and approval after the date of the Notice to Proceed within:

_____ Calendar Days

The remainder of the shop drawings for all Work will be submitted to the Engineer for review and approval after the date of the Notice to Proceed within:

_____ Calendar Days

The CONTRACTOR shall submit a comprehensive schedule with submittal dates of all drawings and information to be submitted by the CONTRACTOR after the date of the Notice to

BIDDER'S NAME:

TL

Proceed within:

_____ Calendar Days

5.2 DELIVERY SCHEDULE

Delivery of all materials and associated equipment will be made after the date of the Notice to Proceed within:

_____ Calendar Days

A schedule of major milestones shall be submitted with this bid.

5.3 FIELD SERVICE TIME

Field service time included in base bid

_____ Days

Price per day of field service time for additional or fewer days than included in base bid

\$ _____

6 – DESCRIPTIVE DATA

The bidder submits the following data and information for the Work proposed:

6.1 POLES

A. Manufacturer

B. Size

C. Type

D. Quantity

6.2 GOAB SWITCHES

A. Manufacturer

B. Size

C. Type

D. Quantity

TL

BIDDER'S NAME:

6.3 CAPACITOR BANK

A. Manufacturer

B. Size

C. Type

D. Quantity

6.4 LINE CONDUCTOR

A. Manufacturer

B. Size

C. Type

D. Quantity

6.5 AUXILIARY EQUIPMENT

7 - WARRANTY PERIOD

Warranty Period Proposed:

Description of warranty coverage and specific exclusions:

8 - CONTRACTOR'S REFERENCES

TL

BIDDER'S NAME:

To aid the OWNER in determining the bidder's qualifications and experience, the bidder shall provide a list of his experience and/or installations in this class of work.

Owner

Contact Name/Telephone Number

Description of Work

Contract Value

Owner

Contact Name/Telephone Number

Description of Work

Contract Value

Owner

Contact Name/Telephone Number

Description of Work

Contract Value

9 - LIST OF SUBCONTRACTORS

Provide a list of subcontractors intended to be used to aid in completion of this Work.

Subcontractor

Description of Work

TL

BIDDER'S NAME:

Subcontractor

Description of Work

Subcontractor

Description of Work

10 - LIST OF EXHIBITS

The following is a complete list of all drawings photographs, bulletins, catalogs, and other descriptive matter submitted with and forming a part of this bid.

11 - BOND AND AFFIDAVITS

The following Bond and Affidavits have been executed and are included:

Bid Bond or Certified Check

Non-Collusion Affidavit

Delinquent Personal Property Tax Affidavit

12 – SUPPLEMENTAL INFORMATION

The following supplemental information is to be Attached to the Bid Form:

Qualifications to do Business in this State

Financial Statement

Statement of Experience

Bid Bond or certified check is payable to the City of Dover, Ohio, which bond shall remain in full force and effect and which certified check, it is agreed, shall be retained as liquidated damages by and shall remain the absolute property of the City of Dover, Ohio, if the undersigned fails to execute the Contract in the form incorporated in the Contract Documents and furnish bonds as specified within ten (10) days after notification of the award of a Contract to the undersigned.

Signed and sealed this _____ day of _____, 20__.

(COMPANY NAME)

By _____
(SIGNATURE)

(PRINT NAME)

Title _____

Corporate Seal

(Attest)

Note: Business Address:

If the bidder is a copartnership, firm name and signatures of all partners are required; if a corporation, full corporate name, signature of authorized official and evidence of authority to sign are required

State in Which Incorporated:

(To be executed by Bidder and Surety Company before depositing bid)

BID BOND

"KNOW ALL MEN BY THESE PRESENTS, that we, the bidder (hereafter identified as "principal"), and the undersigned surety, are hereby held and firmly bound unto the City of Dover, Ohio (identified hereafter as "obligee") in the penal sum of the dollar amount of the bid submitted by the principal to the obligee to undertake the bid to which this Bid Security Form is attached. The penal sum referred to herein shall be the dollar amount of the principal's bid to the obligee, incorporating any additive or deductive alternate bids made by the principal to the obligee, which are accepted by the obligee.

For the payment of the penal sum well and truly to be made, principal and surety hereby jointly and severally bind themselves, their heirs, executors, administrators, successors and assigns.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that whereas the above named principal has submitted a bid for the bid to which this form is attached.

Now therefore, if the obligee accepts the bid of the principal and the principal either fails or refuses to enter into a contract in accordance with the bid, plans, details, specifications and bills of material; then this undertaking shall be void if:

1. the principal pays to the obligee the difference (not to exceed ten (10) percent of the penalty hereof) between the amount specified in the bid and such larger amount for which the obligee may in good faith contract with the next lowest bidder to perform the work covered by the bid; or,
2. in the event the obligee does not award the contract to the next lowest bidder and resubmits the project for bidding, the principal pays to the obligee the difference (not to exceed ten (10) percent of the penalty hereof) between the amount specified in the bid, or the costs, in connection with the resubmission, of printing new Contract Documents, required advertising and printing and mailing notices to prospective bidders, whichever is less.

If the obligee accepts the bid of the principal and the principal within ten (10) days after the awarding of the contract enters into an enforceable contract with obligee in accordance with the bid, plans, details, specifications and bills of material, which contract shall be a part of this bond the same as though set forth herein, then this obligation shall be null and void. Otherwise, the obligations shall remain in full force and effect.

Signed this _____ day of _____, 20__.

Surety:

Principal:

By _____
Name of Attorney in Fact

For _____
Name of Surety Company

Name _____

Title _____

Principal's Full Name

Indicate Whether Corporation,
Partnership or
Sole Proprietorship

NOTE: Attorney in fact shall attach proof of authorization by Surety to execute bonds on behalf of the identified Surety. Failure to do so shall result in the Bond being considered incomplete.

Approved as to Form
City Law Director

BIDDER'S BOND

KNOW ALL MEN BY THESE PRESENTS:

That we, _____
(INSERT LEGAL TITLE OF CONTRACTOR)

as Principal, and _____
(INSERT LEGAL TITLE OF SURETY)

as surety, licensed to do business in the State of [____], are held and firmly bound unto the
City of Dover, Ohio, as obligee, in the sum of _____
_____ Dollars (\$_____)

for the payment of which sum, well and truly to be made, we hereby bind ourselves, our heirs,
executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for _____

(INSERT CONTRACT NO. AND TITLE)

NOW THEREFORE, THE CONDITIONS OF THIS OBLIGATION are such that if the City of
Dover, Ohio, shall accept the bid and a Contract be awarded to the above Principal and the Principal
shall, within ten (10) days after such award is made, enter into a Contract with the City of Dover,
Ohio for the Work bid upon, and give bond as required; then this obligation shall be null and void;
otherwise it shall remain in full force and effect.

Signed and Sealed this _____ day of _____, 20__.

CONTRACTOR:

(LEGAL TITLE OF CONTRACTOR) (SEAL)

(ATTEST)

(SIGNATURE)

(SIGNER'S NAME PRINTED)

(TITLE)

SURETY:

(LEGAL TITLE OF SURETY) (SEAL)

(ATTEST)

(SIGNATURE)

(SIGNER'S NAME PRINTED)

(TITLE)

NOTE: USE THIS PART OF FORM IF CERTIFIED CHECK ACCOMPANIES BID:

Enclosed herewith find certified check for \$ _____ being _____ % pf the maximum bid herein, made payable to the City of Dover, Ohio, the proceeds of which are to remain the absolute property of said City of Dover, Ohio, if

(INSERT LEGAL TITLE OF CONTRACTOR)

shall not, within ten (10) days after notice of acceptance of the within bid, enter into a written Contract and secure said Contract by a bond for the full amount of the Contract to the approval of the proper officials of said City of Dover, Ohio.

NON-COLLUSION AFFIDAVIT

State of _____)
County of _____) ss.

The undersigned being first duly sworn as provided by law, deposes and says:

1. His name is _____
And he resides at _____
And his office is at _____

2. He makes this affidavit with the knowledge and intent that it is to be filed with the City of Dover, Ohio, and that it will be relied upon by said City in any consideration which it may give to and any action which it may take with respect to this bid.

3. He makes and is authorized to make this affidavit on behalf of:

(Name of Corporation, Partnership, Individual, etc.)
A _____ formed under the laws of _____ of
which he is _____
(Sole Owner, Partner, President, etc.)

4. Neither the undersigned nor any other person, firm or corporation, named in above Paragraph 3 nor anyone else to the knowledge of the undersigned, have themselves solicited or employed anyone else to solicit favorable action for this bid by the City; also that no head of any department or employee therein, or any officer of the City of Dover, Ohio is directly interested therein.

5. The undersigned certifies in connection with this bid that:
A. The price in this bid has been independently arrived at without collusion with any other bidder or offerer or with any competitor;

- B. Unless otherwise required by law, the price in this bid has not been knowingly disclosed and will not be knowingly disclosed prior to opening, in the case of a bid, or prior to award, in any case of a bid, directly or indirectly to any other bidder or to any competitor; and
 - C. No attempt has been or will be made to induce any other person or firm to submit or not to submit a bid.
6. The affiant certifies that he has fully informed himself regarding the accuracy of the statements contained in this certification.

(Affiant)

Sworn to before me and subscribed in my presence this _____ day of _____, 20__.

(Notary Public)

(Notarial Seal)

**AFFIDAVIT IN COMPLIANCE WITH
THE OHIO REVISED CODE**

STATE OF OHIO

COUNTY OF _____ SS:

Personally appeared before me the undersigned, as an individual or as a representative of

_____ for a contract for the North End Powerline Extension Project.
(Name of Entity)

to be let by the City of Dover, who, being duly cautioned and sworn, makes the following statement with respect to prohibited activities constituting a conflict of interest or other violations under Ohio Revised Code and further states that the undersigned has the authority to make the following representation on behalf of himself or herself or of the business entity:

1. That none of the following has **individually** made within the previous twenty four months and that, if awarded a contract for the purchase of goods or services in the aggregate in excess of \$10,000.00, none of the following **individually** will make, beginning on the date the contract is awarded and extending until one year following the conclusion of the contract, as an individual, one or more campaign contributions totaling in excess of \$1,000, to any Officer of Dover or to their individual campaign committee:
 - a. myself;
 - b. any partner or owner or shareholder of the partnership (if applicable);
 - c. any owner of more than 20% of the corporation or business trust (if applicable);
 - d. each spouse of any person identified in (a) through (c) of this section;
 - e. each child seven years of age to seventeen years of age of any person identified in divisions (a) through (c) of this section (only applicable to contributions made on or after January 1, 2007).

2. That none of the following have **collectively** made within the previous twenty four months, and that, if awarded a contract for the purchase of goods or services in the aggregate in excess of \$10,000.00, none of the following **collectively** will make, beginning on the date the contract is awarded and extending until one year following the conclusion of the contract, one or more campaign contributions totaling in excess of \$2,000, to any Officer of Dover or to their individual campaign committee:
 - a. myself;
 - b. any partner or owner or shareholder of the partnership (if applicable);
 - c. any owner of more than 20% of the corporation or business trust (if applicable);
 - d. each spouse of any person identified in (a) through (c) of this section;
 - e. each child seven years of age to seventeen years of age of any person identified in divisions (a) through (c) of this section.

Signature _____

Title: _____

Sworn to before me and subscribed in my presence this _____ day of _____, 20__.

Notary Public _____

My Commission Expires: _____

AGREEMENT

CONTRACT NO. 024-02083-00 – NORTH END POWERLINE EXTENSION

This Agreement by and between _____ (a corporation organized under the laws of the State of _____), hereinafter called the "CONTRACTOR" and the City of Dover, County of Tuscarawas and State of Ohio (a municipal corporation organized under the laws of the State of Ohio) hereinafter called the "Owner."

Owner and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

Article 1: Work

CONTRACT NO. 024-02083-00 – NORTH END POWERLINE EXTENSION

These specifications cover the furnishing of all labor, specified materials, apparatus, expendable tools and equipment, and all other services required for the construction of one (1) 15 kV pole line associated with improvements to the Municipal Electric System of the City of Dover, Ohio. The base bid consists of the construction/rebuild of approximately 1.7 miles of pole line along with the relocation of existing secondary circuits. The new 15 kV dedicated pole line distribution circuit route will be from the North Intertie Substation to the new plant site located south of Crown Road Northwest and west of North Wooster Avenue. A portion of the dedicated distribution circuit will be an overbuild modification of a pole line that contains either one or two existing distribution circuit lines. Existing distribution conductors and secondary circuits will be relocated to the new poles. The existing poles will have all the circuit hardware removed. The existing poles will be topped immediately above the existing communication/fiber circuits as part of the scope of work. Replacement and new pole line sections are shown in detail on the associated drawings which describes the scope of work for the improvements to the Municipal Electric System of the City of Dover, Ohio.

Article 2: Engineer

The Engineer is:

SSOE GROUP
1001 Madison Ave
Toledo Ohio 43604
419-255-3830

Article 3: Contract Times

3.1 The equipment will be completed and delivered on or before _____ calendar days after the effective date of the Contract.

Article 4: Contract Price

Owner shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents an amount in current funds the Contract Price of _____

(\$_____).

The Contract price is based on the following:

Article 5: Payment Procedures

CONTRACTOR shall submit Applications for Payment in accordance with Article 6 of the Procurement General Conditions. Applications for Payment will be processed by the Engineer as provided in the Procurement General Conditions. Owner shall make payments on account of the Contract Price on the basis of CONTRACTOR's Applications for Payment as recommended by the Engineer.

Article 6: Contract Documents

The Contract Documents which comprise the entire agreement between OWNER and CONTRACTOR concerning the Work consist of the following:

- 6.1 This Agreement
- 6.2 Bonds
- 6.3 Notice of Award

- 6.4 Affidavit of CONTRACTOR or Supplier of Non-Delinquency of Personal Property Taxes
- 6.5 Addendum No. _____
- 6.6 Procurement General Conditions and Procurement Supplementary Conditions
- 6.7 Specifications and Drawings
- 6.8 Bid Form
- 6.9 CONTRACTOR's Proposal
- 6.10 Documentation submitted by CONTRACTOR prior to Notice of Award as follows:
 - A.
 - B.
 - C.
 - D.
- 6.11 The following which may be delivered or issued after the Effective Date of the Agreement and are not attached hereto: All written amendments and other documents amending, modifying or supplementing the Contract Documents pursuant to paragraphs 3.2 and 3.3 of the Procurement General Conditions.

There are no Contract Documents other than those listed above in this Article 6. The Contract Documents may only be amended, modified or supplemented as provided in paragraph 3.1 of the Procurement General Conditions.

Article 7: Miscellaneous

- 7.1 Terms used in this Agreement which are defined in Article 1 of the Procurement General Conditions will have the meanings indicated in the General Conditions.
- 7.2 No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law) and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.
- 7.3 OWNER and CONTRACTOR each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.
- 7.4 Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon OWNER and CONTRACTOR, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

In the event that any provision of the above component part of this Contract conflicts with any provision in any other component part, the provision in the component part first enumerated above shall govern over any other component part which follows it numerically, except as may be otherwise specifically stated.

IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed four (4) copies of this Agreement. Two (2) Agreements have been delivered to the OWNER, and one (1) each to the CONTRACTOR and ENGINEER. All portions of the Contract Documents have been signed, initialed or identified by OWNER and CONTRACTOR or identified by ENGINEER on their behalf.

This Agreement will be effective on _____, 20____ (which is the Effective Date of the Agreement).

(OWNER'S NAME)

By: _____
(PRINT NAME)

(SIGNATURE)

Date: _____

Attest: _____

Address for giving notices

Approved as to Form

City Law Director

(CONTRACTOR'S NAME)

By: _____
(PRINT NAME)

(SIGNATURE)

Date: _____

Corporate Seal

Attest: _____

Address for giving notices

Agent for service of process:

INSTRUCTIONS FOR EXECUTING CONTRACT

If the CONTRACTOR be a corporation, the following certificate should be executed:

Date: _____, 20 ____

I, _____, certify that I am the _____ Secretary of the corporation named as CONTRACTOR hereinabove; that _____, who signed the foregoing Contract on behalf of the CONTRACTOR, was then _____ of said corporation; that said Contract was fully signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

(Signature) (Corporate Seal)

If the Contract be signed by the secretary of the corporation, the above certificate should be executed by some other officer of the corporation, under the corporate seal, in lieu of the foregoing certificate, there may be attached to the Contract copies so much of the records of the corporation as will show the official character and authority of the officers signing, duly certified by the secretary under the corporate seal to be true copies.

The full name and business address of the CONTRACTOR should be inserted and the Contract should be signed with his official signature. Please have the name of the signing party, or parties typewritten or printed under all signatures to the Contract.

If the CONTRACTOR should be operating as a partnership, each partner should sign the Contract. If the Contract be not signed by each partner, there should be attached to the Contract a duly authenticated power-of-attorney evidencing the signer's (signers') authority to sign such Contract for and in behalf of the partnership.

If the CONTRACTOR be an individual, the trade name (if the CONTRACTOR be operating under a trade name) should be indicated in the Contract and the Contract should be signed by such individual. If signed by one other than the CONTRACTOR, there should be attached to the Contract a duly authenticated power-of-attorney evidencing the signer's authority to execute such Contract for and in behalf of the CONTRACTOR.

**CERTIFICATE OF
AVAILABILITY OF FUNDS**

I, _____
City Auditor of the City of Dover, Ohio, do hereby certify that the funds required to meet the Contract obligations of the City of Dover, under an agreement dated _____, by and between _____

"CONTRACTOR," and the City of Dover, "Owner," for the work in connection with an improvement of and additions to the Municipal Electric System of the City of Dover, Ohio, are on hand and are available for the purpose and are not appropriated for any other purpose.

Dated _____, 20____.

City Auditor
City of Dover, Ohio

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: That, we the undersigned

_____, as Principal,
(INSERT LEGAL TITLE OF CONTRACTOR)

and _____, as surety,
(INSERT LEGAL TITLE OF SURETY)

are hereby held and firmly bound unto the City of Dover, Ohio, as obligee, in the penal sum of

Dollars (\$_____)

for the payment of which sum, well and truly to be made, we hereby bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS the above named Principal did on the _____ day of _____, 20____, enter into a Contract with the City of Dover, Ohio, for

(INSERT CONTRACT NO. AND TITLE)

which said Contract is by reference made a part of this bond the same as though set forth herein.

NOW, THEREFORE THE CONDITIONS OF THIS OBLIGATION are such that, if the said Principal shall promptly, faithfully, and fully perform the Work required by said Contract; and shall pay all lawful claims of subcontractors, material men and laborers for labor performed and materials furnished in the carrying forward, performing and completing of said Contract; it being understood and agreed that this undertaking shall be for the benefit of any material man or laborer having a just and valid claim for payment, as well as for the obligee herein; then this obligation shall be null and void; otherwise it shall remain in full force and effect, it being expressly understood and agreed that the liability of the surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

And the said surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the Work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract, or to the Work or to the specifications.

Signed and Sealed this _____ day of _____, 20_____.

CONTRACTOR:

(LEGAL TITLE OF CONTRACTOR) (SEAL)

(ATTEST)

(SIGNATURE)

(SIGNER'S NAME PRINTED)

(TITLE)

SURETY:

(LEGAL TITLE OF SURETY) (SEAL)

(ATTEST)

(SIGNATURE)

(SIGNER'S NAME PRINTED)

(TITLE)

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENT:

That _____
(Name of Contractor)

(Address of Contractor)

a _____, hereinafter called
(Corporation, Partnership, or Individual)

principal, and _____
(Name of Surety)

hereinafter called Surety, are held and firmly bound unto the City of Dover, Ohio; hereinafter called Owner, in the penal sum of _____

_____ Dollars

and _____ Cents (\$ _____) in lawful money of the United States,

for the payment of which sum well and truly, to be made, we bind ourselves, successors and assigns, jointly and severally, firmly by these present.

THE CONDITION OF THE OBLIGATION is such that whereas, the Principal entered into a certain Contract with the Owner, dated the _____ day of _____, 20__, a copy of which is hereto attached and made a part hereof for the construction of:

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, Subcontractors, and corporations furnishing materials for or performing labor in the prosecution of the Work provided for in such Contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools consumed or used in connection with the construction of such Work, and all insurance premiums on said Work, and for all labor, performed in such Work whether by

Subcontractor or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety for value received hereby stipulates and agrees that no change, extension of time, alterations or addition to the terms of the Contract or to the Work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the Work or to the specifications.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in _____ counterparts, each one of which shall be deemed an original, this the _____ day of _____, 20__.

ATTEST:

(Principal) Secretary

PRINCIPAL

SEAL:

BY: _____

ADDRESS: _____

WITNESS TO PRINCIPAL

TELEPHONE NO. _____

ADDRESS: _____

WITNESS TO SURETY

SURETY

ATTEST:

BY: _____

Attorney-in-Fact

WITNESS TO SURETY

ADDRESS: _____

ADDRESS: _____

WITNESS TO SURETY

WITNESS TO SURETY

ESCROW AGREEMENT

THIS AGREEMENT, by and between the CITY OF DOVER, OHIO, hereinafter called the "CITY" and _____ hereinafter known as the "CONTRACTOR."

WITNESSETH

THAT WHEREAS, the CITY OF DOVER has awarded a Contract to the CONTRACTOR for the construction of the following described project:

CONTRACT NO. 024-02083-00 – NORTH END POWERLINE EXTENSION

These specifications cover the furnishing of all labor, specified materials, apparatus, expendable tools and equipment, and all other services required for the construction of one (1) 15 kV pole line associated with improvements to the Municipal Electric System of the City of Dover, Ohio. The base bid consists of the construction/rebuild of approximately 1.7 miles of pole line along with the relocation of existing secondary circuits. The new 15 kV dedicated pole line distribution circuit route will be from the North Intertie Substation to the new plant site located south of Crown Road Northwest and west of North Wooster Avenue. A portion of the dedicated distribution circuit will be an overbuild modification of a pole line that contains either one or two existing distribution circuit lines. Existing distribution conductors and secondary circuits will be relocated to the new poles. The existing poles will have all the circuit hardware removed. The existing poles will be topped immediately above the existing communication/fiber circuits as part of the scope of work. Replacement and new pole line sections are shown in detail on the associated drawings which describes the scope of work for the improvements to the Municipal Electric System of the City of Dover, Ohio.

AND WHEREAS, said Contract pursuant with the Ohio Revised Code sets forth a requirement that for the first fifty percent (50%) of the completed work on said contract, the CITY will retain eight percent (8%) to be placed in escrow in a local bank at the best interest rate available at the time and to be kept in escrow until completion and final acceptance of the project by the Engineer and the CITY.

NOW, THEREFORE, in consideration of the mutual promises, covenants and conditions herein contained, the parties do hereby agree as follows:

1. The CITY will place in an escrow account in a local bank at the best interest rate available the said amounts until completion and final acceptance of the project by the engineer and the CITY.

2. Upon said acceptance of the project, said retainage will be paid to the CONTRACTOR together with one-half (1/2) of the accrued interest, the remaining one-half (1/2) interest to be retained by the CITY for services rendered in connection with the establishment of this escrow account.

3.
 - a) It is AGREED that for purposes of this AGREEMENT, the CITY shall act as agent for the CONTRACTOR in the establishment of this account, and the CONTRACTOR authorizes the CITY to deposit said monies in an escrow account maintained under the name of the CONTRACTOR and the CITY OF DOVER.

 - b) CONTRACTOR AGREES that the CITY of DOVER shall retain the passbook on said escrow account at all times, and shall have sole access to the escrow account if the CONTRACTOR does not fulfill the obligations of the contract. Any funds used from said account shall be applied to complete the work remaining to be performed and any balance remaining thereafter shall be delivered to CONTRACTOR with an accounting of the proceeds used.

4. Upon completion and acceptance CITY agrees to remove said funds from said account and distribute said funds pursuant to Paragraph 2 herein.

Dated this _____ day of _____, 20____

Signed in the presence of:

CITY OF DOVER

BY: _____

CONTRACTOR

BY: _____

F.I. NO. _____

NOTICE TO PROCEED

TO: _____

DATE: _____

PROJECT: CITY OF DOVER, OHIO
NORTH END POWERLINE EXTENSION
CONTRACT NO. 024-02083-00

You are hereby notified to commence Work in accordance with the Articles of Agreement dated _____ 20__, on or before _____ and you are to complete the Work within _____ consecutive calendar days thereafter. The date of completion of all Work is therefore _____, 20__.

You are required to return an acknowledged copy of this Notice to Proceed to the city.

ACCEPTANCE OF NOTICE

Receipt of the above Notice to Proceed is hereby acknowledged

_____ Contractor

CITY OF DOVER, OHIO

By: _____
(Signature)

By: _____
(Signature)

(Print Name)

(Print Name)

Title: _____

Title: _____

Date: _____

Date: _____

NOTICE OF AWARD

TO: _____

PROJECT DESCRIPTION: CONTRACT NO. 024-02083-00 – NORTH END POWERLINE EXTENSION

The CITY OF DOVER has considered the Bid submitted by you for the above described Work in response to its "Advertisement for Bids" and "Instructions to Bidders."

You are hereby notified that your Bid has been accepted for the Work in the amount of \$ _____.

You are required by the Instructions to Bidders to execute the Articles of Agreement and furnish the required Contractor's Performance and Payment Bond, Certificate of Insurance, Workers' Compensation Certificates, and Construction Schedule within ten (10) calendar days from the date of this Notice of Award.

If you fail to execute said Agreement and/or to furnish said Bonds within ten (10) calendar days from the date of receipt of this Notice of Award, the Owner will be entitled to consider all your rights arising out of the Owner's acceptance of your Bid as abandoned and as a forfeiture of your Bid Bond. The City will be entitled to such other rights as may be granted by law.

You are required to sign and return an acknowledged copy of this Notice of Award to the City.

Dated this _____ day of _____, 20____.

Receipt of the Notice of Award is hereby acknowledged

_____(Contractor)

CITY OF DOVER, OHIO

By: _____
(Signature)

By: _____
(Signature)

(Print Name)

(Print Name)

Title: _____

Title: _____

Date: _____

Date: _____

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

**STANDARD
GENERAL CONDITIONS
OF THE
CONSTRUCTION CONTRACT**

Prepared by
Engineers Joint Contract Documents Committee
and

Issued and Published Jointly By



PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE
A practice division of the
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

AMERICAN CONSULTING ENGINEERS COUNCIL

AMERICAN SOCIETY OF CIVIL ENGINEERS

CONSTRUCTION SPECIFICATIONS INSTITUTE

This document has been approved and endorsed by

The Associated General  Contractors of America

These General Conditions have been prepared for use with the Owner-Contractor Agreements (No. 1910-8-A-1 or 1910-8-A-2) (1990 Editions). Their provisions are interrelated and a change in one may necessitate a change in the others. Comments concerning their usage are contained in the Commentary on Agreements for Engineering Services and Contract Documents (No. 1910-9) (1986 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (No. 1910-17) (1990 Edition). When bidding is involved, the Standard Form of Instructions to Bidders (No. 1910-12) (1990 Edition) may be used.

© 1990 National Society of Professional Engineers
1420 King Street, Alexandria, VA 22314

American Consulting Engineers Council
1015 15th Street, N.W., Washington, DC 20005

American Society of Civil Engineers
345 East 47th Street, New York, NY 10017

Construction Specifications Institute
601 Madison St., Alexandria, VA 22314

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GENERAL CONDITIONS

ARTICLE 1—DEFINITIONS

Wherever used in these General Conditions or in 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 Bidding Requirements or the Contract Documents.

1.2. *Agreement*—The written contract 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 ENGINEER which is to be used by CONTRACTOR in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

1.4. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

1.5. *Bid*—The offer or proposal of the bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

1.6. *Bidding Documents*—The advertisement or invitation to Bid, instructions to bidders, the Bid form, and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).

1.7. *Bidding Requirements*—The advertisement or invitation to Bid, instructions to bidders, and the Bid form.

1.8. *Bonds*—Performance and Payment bonds and other instruments of security.

1.9. *Change Order*—A document recommended by ENGINEER, 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 Times, issued on or after the Effective Date of the Agreement.

1.10. *Contract Documents*—The 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 Notice to Proceed, the Bonds, these General Conditions, the Supplementary Conditions, the Specifications and the Drawings as the same are more specifically identified in the Agree-

ment, together with all Written Amendments, Change Orders, Work Change Directives, Field Orders and ENGINEER's written interpretations and clarifications issued pursuant to paragraphs 3.5, 3.6.1, and 3.6.3 on or after the Effective Date of the Agreement. Shop Drawing submittals approved pursuant to paragraphs 6.26 and 6.27 and the reports and drawings referred to in paragraphs 4.2.1.1 and 4.2.2.2 are not Contract Documents.

1.11. *Contract Price*—The moneys payable by OWNER to CONTRACTOR for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of paragraph 11.9.1 in the case of Unit Price Work).

1.12. *Contract Times*—The numbers of days or the dates stated in the Agreement: (i) to achieve Substantial Completion, and (ii) to complete the Work so that it is ready for final payment as evidenced by ENGINEER's written recommendation of final payment in accordance with paragraph 14.13.

1.13. *CONTRACTOR*—The person, firm or corporation with whom OWNER has entered into the Agreement.

1.14. *defective*—An adjective which when modifying the word Work refers to Work that is unsatisfactory, faulty or deficient, in that it 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 ENGINEER's recommendation of final payment (unless responsibility for the protection thereof has been assumed by OWNER at Substantial Completion in accordance with paragraph 14.8 or 14.10).

1.15. *Drawings*—The drawings which show the scope, extent and character of the Work to be furnished and performed by CONTRACTOR and which have been prepared or approved by ENGINEER and are referred to in the Contract Documents. Shop drawings are not Drawings as so defined.

1.16. *Effective Date of the Agreement*—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

1.17. *ENGINEER*—The person, firm or corporation named as such in the Agreement.

1.18. *ENGINEER's Consultant*—A person, firm or corporation having a contract with ENGINEER to furnish services as ENGINEER's independent professional associate or consultant with respect to the Project and who is identified as such in the Supplementary Conditions.

1.19. *Field Order*—A written order issued by ENGINEER which orders minor changes in the Work in accordance with paragraph 9.5 but which does not involve a change in the Contract Price or the Contract Times.

1.20. *General Requirements*—Sections of Division 1 of the Specifications.

1.21. *Hazardous Waste*—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

1.22. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes and orders of any and all governmental bodies, agencies, authorities and courts having jurisdiction.

1.23. *Liens*—Liens, charges, security interests or encumbrances upon real property or personal property.

1.24. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

1.25. *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 precedent enumerated therein, within the time specified, OWNER will sign and deliver the Agreement.

1.26. *Notice to Proceed*—A written notice given by OWNER to CONTRACTOR (with a copy to ENGINEER) fixing the date on which the Contract Times will commence to run and on which CONTRACTOR shall start to perform CONTRACTOR's obligations under the Contract Documents.

1.27. *OWNER*—The public body or authority, corporation, association, firm or person with whom CONTRACTOR has entered into the Agreement and for whom the Work is to be provided.

1.28. *Partial Utilization*—Use by OWNER of a substantially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all the Work.

1.29. *PCBs*—Polychlorinated biphenyls.

1.30. *Petroleum*—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Wastes and crude oils.

1.31. *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.

1.32. *Radioactive Material*—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

1.33. *Resident Project Representative*—The authorized representative of ENGINEER who may be assigned to the site or any part thereof.

1.34. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

1.35. *Shop Drawings*—All drawings, diagrams, illustrations, schedules and other data or information which are specifically prepared or assembled by or for CONTRACTOR and submitted by CONTRACTOR to illustrate some portion of the Work.

1.36. *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.

1.37. *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.

1.38. *Substantial Completion*—The Work (or a specified part thereof) has progressed to the point where, in the opinion of ENGINEER as evidenced by ENGINEER's definitive certificate of Substantial Completion, it is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended; or if no such certificate is issued, when the Work is complete and ready for final payment as evidenced by ENGINEER's written recommendation of final payment in accordance with paragraph 14.13. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

1.39. *Supplementary Conditions*—The part of the Contract Documents which amends or supplements these General Conditions.

1.40. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman or vendor having a direct contract with CONTRACTOR or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by CONTRACTOR or any Subcontractor.

1.41. *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.

1.42. *Unit Price Work*—Work to be paid for on the basis of unit prices.

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

1.44. *Work Change Directive*—A written directive to CONTRACTOR, issued on or after the Effective Date of the Agreement and signed by OWNER and recommended by ENGINEER, ordering an addition, deletion or revision in the Work, or responding to differing or unforeseen physical conditions under which the Work is to be performed as provided in paragraph 4.2 or 4.3 or to emergencies under paragraph 6.23. A Work Change Directive will not change the Contract Price or the Contract Times, but is evidence that the parties expect that the change directed or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times as provided in paragraph 10.2.

1.45. *Written Amendment*—A written amendment of the Contract Documents, signed by OWNER and CONTRACTOR on or after the Effective Date of the Agreement and normally dealing with the nonengineering or nontechnical rather than strictly construction-related aspects of the Contract Documents.

ARTICLE 2—PRELIMINARY MATTERS

Delivery of Bonds:

2.1. When CONTRACTOR delivers the executed Agreements to OWNER, CONTRACTOR shall also deliver to OWNER such Bonds as CONTRACTOR may be required to furnish in accordance with paragraph 5.1.

Copies of Documents:

2.2. OWNER shall furnish to CONTRACTOR up to ten copies (unless otherwise specified in the Supplementary 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.

Commencement of Contract Times; Notice to Proceed:

2.3. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement, or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within thirty days after the Effective Date of the Agreement. In no event will the

Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

Starting the Work:

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

Before Starting Construction:

2.5. 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 ENGINEER any conflict, error, ambiguity or discrepancy which CONTRACTOR may discover and shall obtain a written interpretation or clarification from ENGINEER before proceeding with any Work affected thereby; however, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any conflict, error, ambiguity or discrepancy in the Contract Documents, unless CONTRACTOR knew or reasonably should have known thereof.

2.6. Within ten days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), CONTRACTOR shall submit to ENGINEER for review:

2.6.1. a preliminary progress schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;

2.6.2. a preliminary schedule of Shop Drawing and Sample submittals which will list each required submittal and the times for submitting, reviewing and processing such submittal;

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 component parts in sufficient detail 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.

2.7. Before any Work at the site is started, CONTRACTOR and OWNER shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which CONTRACTOR and OWNER respectively are required to purchase and maintain in accordance with paragraphs 5.4, 5.6 and 5.7.

Preconstruction Conference:

2.8. Within twenty days after the Contract Times start to run, but before any Work at the site is started, a conference

attended by CONTRACTOR, ENGINEER and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in paragraph 2.6, procedures for handling Shop Drawings and other submittals, processing Applications for Payment and maintaining required records.

Initially Acceptable Schedules:

2.9. Unless otherwise provided in the Contract Documents, at least ten days before submission of the first Application for Payment a conference attended by CONTRACTOR, ENGINEER and others as appropriate will be held to review for acceptability to ENGINEER as provided below the schedules submitted in accordance with paragraph 2.6. CONTRACTOR shall have an additional ten days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to CONTRACTOR until the schedules are submitted to and acceptable to ENGINEER as provided below. The progress schedule will be acceptable to ENGINEER as providing an orderly progression of the Work to completion within any specified Milestones and the Contract Times, but such acceptance will neither impose on ENGINEER responsibility for the sequencing, scheduling or progress of the Work nor interfere with or relieve CONTRACTOR from CONTRACTOR's full responsibility therefor. CONTRACTOR's schedule of Shop Drawing and Sample submissions will be acceptable to ENGINEER as providing a workable arrangement for reviewing and processing the required submittals. CONTRACTOR's schedule of values will be acceptable to ENGINEER as to form and substance.

**ARTICLE 3—CONTRACT DOCUMENTS: INTENT,
AMENDING, REUSE**

Intent:

3.1. 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. 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 or from prevailing custom or trade usage as being required to produce the intended result will be furnished and performed whether or not specifically called for. When words or phrases which have a well-known technical or construction industry or trade meaning are used to describe Work, materials or equipment, such words or phrases shall be interpreted in accordance with that meaning. Clarifi-

cations and interpretations of the Contract Documents shall be issued by ENGINEER as provided in paragraph 9.4.

3.3. Reference to Standards and Specifications of Technical Societies; Reporting and Resolving Discrepancies:

3.3.1. Reference to standards, 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 in the Contract Documents.

3.3.2. If, during the performance of the Work, CONTRACTOR discovers any conflict, error, ambiguity or discrepancy within the Contract Documents or between the Contract Documents and any provision of any such Law or Regulation applicable to the performance of the Work or of any such standard, specification, manual or code or of any instruction of any Supplier referred to in paragraph 6.5, CONTRACTOR shall report it to ENGINEER in writing at once, and, CONTRACTOR shall not proceed with the Work affected thereby (except in an emergency as authorized by paragraph 6.23) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in paragraph 3.5 or 3.6; provided, however, that CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any such conflict, error, ambiguity or discrepancy unless CONTRACTOR knew or reasonably should have known thereof.

3.3.3. Except as otherwise specifically stated in the Contract Documents or as may be provided by amendment or supplement thereto issued by one of the methods indicated in paragraph 3.5 or 3.6, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity or discrepancy between the provisions of the Contract Documents and:

3.3.3.1. the provisions of any such standard, specification, manual, code or instruction (whether or not specifically incorporated by reference in the Contract Documents); or

3.3.3.2. the provisions of any such Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

No provision of any such standard, specification, manual, code or instruction shall be effective to change the duties and responsibilities of OWNER, CONTRACTOR or ENGINEER, or any of their subcontractors, consultants, agents, or employees from those set forth in the Contract Documents, nor shall it be effective to assign to OWNER, ENGINEER or any of ENGINEER'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 inconsistent with the provisions of paragraph 9.13 or any other provision of the Contract Documents.

3.4. 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 of like effect or import are used to describe a requirement, direction, review or judgment of ENGINEER as to the Work, it is intended that such requirement, direction, review or judgment will be solely to evaluate, in general, the completed Work for compliance with the requirements of and information in the Contract Documents and conformance with the design concept of the completed Project as a functioning whole as shown or indicated in 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 to ENGINEER 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 9.13 or any other provision of the Contract Documents.

Amending and Supplementing Contract Documents:

3.5. The Contract Documents may be amended to provide for additions, deletions and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways:

- 3.5.1. a formal Written Amendment,
- 3.5.2. a Change Order (pursuant to paragraph 10.4), or
- 3.5.3. a Work Change Directive (pursuant to paragraph 10.1).

3.6. In addition, the requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, in one or more of the following ways:

- 3.6.1. a Field Order (pursuant to paragraph 9.5),
- 3.6.2. ENGINEER's approval of a Shop Drawing or Sample (pursuant to paragraphs 6.26 and 6.27), or
- 3.6.3. ENGINEER's written interpretation or clarification (pursuant to paragraph 9.4).

Reuse of Documents:

3.7. CONTRACTOR, and any Subcontractor or Supplier or other person or organization performing or furnishing any of the Work under a direct or indirect contract with OWNER (i) shall not 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 ENGINEER or ENGINEER's Consultant, and (ii) shall not reuse any of such Drawings, Specifications, other documents or copies on extensions of the Project or any other project without written consent of OWNER and ENGINEER and specific written verification or adaption by ENGINEER.

ARTICLE 4—AVAILABILITY OF LANDS;
SUBSURFACE AND PHYSICAL
CONDITIONS; REFERENCE POINTS

Availability of Lands:

4.1. 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. Upon reasonable written request, OWNER shall furnish CONTRACTOR with a correct statement of record legal title and legal description of the lands upon which the Work is to be performed and OWNER's interest therein as necessary for giving notice of or filing a mechanic's lien against such lands in accordance with applicable Laws and Regulations. OWNER shall identify any encumbrances or restrictions not of general application but specifically related to use of lands so furnished with which CONTRACTOR will have to comply in performing the Work. 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 and OWNER are unable to agree on entitlement to or the amount or extent of any adjustments in the Contract Price or the Contract Times as a result of any delay in OWNER's furnishing these lands, rights-of-way or easements, CONTRACTOR may make a claim therefor as provided in Articles 11 and 12. 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. Subsurface and Physical Conditions:

4.2.1. *Reports and Drawings:* Reference is made to the Supplementary Conditions for identification of:

4.2.1.1. *Subsurface Conditions:* Those reports of explorations and tests of subsurface conditions at or contiguous to the site that have been utilized by ENGINEER in preparing the Contract Documents; and

4.2.1.2. *Physical Conditions:* Those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except Underground Facilities) that have been utilized by ENGINEER in preparing the Contract Documents.

4.2.2. Limited Reliance by CONTRACTOR Authorized; Technical Data: CONTRACTOR may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," CONTRACTOR may not rely upon or make any claim against OWNER, ENGINEER or any of ENGINEER's Consultants with respect to:

4.2.2.1. the completeness of such reports and drawings for CONTRACTOR's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by CONTRACTOR and safety precautions and programs incident thereto, or

4.2.2.2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings, or

4.2.2.3. any CONTRACTOR interpretation of or conclusion drawn from any "technical data" or any such data, interpretations, opinions or information.

4.2.3. Notice of Differing Subsurface or Physical Conditions: If CONTRACTOR believes that any subsurface or physical condition at or contiguous to the site that is uncovered or revealed either:

4.2.3.1. is of such a nature as to establish that any "technical data" on which CONTRACTOR is entitled to rely as provided in paragraphs 4.2.1 and 4.2.2 is materially inaccurate, or

4.2.3.2. is of such a nature as to require a change in the Contract Documents, or

4.2.3.3. differs materially from that shown or indicated in the Contract Documents, or

4.2.3.4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents; then

CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as permitted by paragraph 6.23), notify OWNER and ENGINEER in writing about such condition. CONTRACTOR shall not further disturb such conditions or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

4.2.4. ENGINEER's Review: ENGINEER will promptly review the pertinent conditions, determine the necessity of OWNER's obtaining additional exploration or tests with respect thereto and advise OWNER in writing (with a copy to CONTRACTOR) of ENGINEER's findings and conclusions.

4.2.5. Possible Contract Documents Change: If ENGINEER concludes that a change in the Contract Documents is required as a result of a condition that meets one or more of the categories in paragraph 4.2.3., a Work Change Directive or a Change Order will be issued as provided in Article 10 to reflect and document the consequences of such change.

4.2.6. Possible Price and Times Adjustments: An equitable adjustment in the Contract Price or in the Contract Times, or both, will be allowed to the extent that the existence of such uncovered or revealed condition causes an increase or decrease in CONTRACTOR's cost of, or time required for performance of, the Work; subject, however, to the following:

4.2.6.1. such condition must meet any one or more of the categories described in paragraphs 4.2.3.1 through 4.2.3.4, inclusive;

4.2.6.2. a change in the Contract Documents pursuant to paragraph 4.2.5 will not be an automatic authorization of nor a condition precedent to entitlement to any such adjustment;

4.2.6.3. with respect to Work that is paid for on a Unit Price Basis, any adjustment in Contract Price will be subject to the provisions of paragraphs 9.10 and 11.9; and

4.2.6.4. CONTRACTOR shall not be entitled to any adjustment in the Contract Price or Times if;

4.2.6.4.1. CONTRACTOR knew of the existence of such conditions at the time CONTRACTOR made a final commitment to OWNER in respect of Contract Price and Contract Times by the submission of a bid or becoming bound under a negotiated contract; or

4.2.6.4.2. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test or study of the site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for CONTRACTOR prior to CONTRACTOR's making such final commitment; or

4.2.6.4.3. CONTRACTOR failed to give the written notice within the time and as required by paragraph 4.2.3.

If OWNER and CONTRACTOR are unable to agree on entitlement to or as to the amount or length of any such equitable adjustment in the Contract Price or Contract Times, a claim may be made therefor as provided in Articles 11 and 12. However, OWNER, ENGINEER and ENGINEER's Consultants shall not be liable to CONTRACTOR for any claims, costs, losses or damages sustained by CONTRACTOR on or in connection with any other project or anticipated project.

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 ENGINEER by the owners of such Underground Facilities or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

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

4.3.1.2. The cost of all of the following will be included in the Contract Price and CONTRACTOR shall have full responsibility for: (i) reviewing and checking all such information and data, (ii) locating all Underground Facilities shown or indicated in the Contract Documents, (iii) coordination of the Work with the owners of such Underground Facilities during construction, and (iv) the safety and protection of all such Underground Facilities as provided in paragraph 6.20 and repairing any damage thereto resulting from the Work.

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, CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by paragraph 6.23), identify the owner of such Underground Facility and give written notice to that owner and to OWNER and ENGINEER. ENGINEER will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence of the Underground Facility. If ENGINEER concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued as provided in Article 10 to reflect and document such consequences. During such time, CONTRACTOR shall be responsible for the safety and protection of such Underground Facility as provided in paragraph 6.20. CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Times, 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 that CONTRACTOR did not know of and could not reasonably have been expected to be aware of or to have anticipated. If OWNER and CONTRACTOR are unable to agree on entitlement to or the amount or length of any such adjustment in Contract Price or Contract Times, CONTRACTOR may make a claim therefor as provided in Articles 11 and 12. However, OWNER, ENGINEER and ENGINEER's Consultants shall not be liable to CONTRACTOR for any claims, costs, losses or damages incurred or sustained by CONTRACTOR on or in connection with any other project or anticipated project.

Reference Points:

4.4. OWNER shall provide engineering surveys to establish reference points for construction which in ENGINEER's judgment are necessary to enable CONTRACTOR to proceed with the Work. CONTRACTOR shall be responsible for laying out the Work, 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 ENGINEER 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 professionally qualified personnel.

4.5. Asbestos, PCBs, Petroleum, Hazardous Waste or Radioactive Material:

4.5.1. OWNER shall be responsible for any Asbestos, PCBs, Petroleum, Hazardous Waste or Radioactive Material uncovered or revealed at the site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work and which may present a substantial danger to persons or property exposed thereto in connection with the Work at the site. OWNER shall not be responsible for any such materials brought to the site by CONTRACTOR, Subcontractor, Suppliers or anyone else for whom CONTRACTOR is responsible.

4.5.2. CONTRACTOR shall immediately: (i) stop all Work in connection with such hazardous condition and in any area affected thereby (except in an emergency as required by paragraph 6.23), and (ii) notify OWNER and ENGINEER (and thereafter confirm such notice in writing). OWNER shall promptly consult with ENGINEER concerning the necessity for OWNER to retain a qualified expert to evaluate such hazardous condition or take corrective action, if any. CONTRACTOR shall not be required to resume Work in connection with such hazardous condition or in any such affected area until after OWNER has obtained any required permits related thereto and delivered to CONTRACTOR special written notice: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (ii) specifying any special conditions under which such Work may be resumed safely. If OWNER and CONTRACTOR cannot agree as to entitlement to or the amount or extent of an adjustment, if any, in Contract Price or Contract Times as a result of such Work stoppage or such special conditions under which Work is agreed by CONTRACTOR to be resumed, either party may make a claim therefor as provided in Articles 11 and 12.

4.5.3. If after receipt of such special written notice CONTRACTOR does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then OWNER may order such portion of the Work that is in connection with such hazardous condition or in such affected area to be deleted from the Work. If OWNER and CONTRACTOR cannot agree as to entitlement to or the amount or extent of an adjustment, if any, in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a claim therefor as provided in Articles 11 and 12. OWNER may have such deleted portion of the Work performed by OWNER's own forces or others in accordance with Article 7.

4.5.4. To the fullest extent permitted by Laws and Regulations, OWNER shall indemnify and hold harmless CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's

Consultants and the officers, directors, employees, agents, other consultants and subcontractors of each and any of them from and against all claims, costs, losses and damages arising out of or resulting from such hazardous condition, provided that: (i) any such claim, cost, loss or damage is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, and (ii) nothing in this subparagraph 4.5.4 shall obligate OWNER to indemnify any person or entity from and against the consequences of that person's or entity's own negligence.

4.5.5. The provisions of paragraphs 4.2 and 4.3 are not intended to apply to Asbestos, PCBs, Petroleum, Hazardous Waste or Radioactive Material uncovered or revealed at the site.

ARTICLE 5—BONDS AND INSURANCE

Performance, Payment and Other Bonds:

5.1. CONTRACTOR shall furnish Performance and Payment Bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all CONTRACTOR's obligations under the Contract Documents. These Bonds shall remain in effect at least until one year after the date when final payment becomes due, except as provided otherwise by Laws or Regulations or by the Contract Documents. CONTRACTOR shall also furnish such other Bonds as are required by the Supplementary Conditions. All Bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff, Bureau of Government Financial Operations, U.S. Treasury Department. All Bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act.

5.2. If the surety on any Bond furnished by CONTRACTOR is declared a bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of paragraph 5.1, CONTRACTOR shall within ten days thereafter substitute another Bond and surety, both of which must be acceptable to OWNER.

5.3. Licensed Sureties and Insurers; Certificates of Insurance:

5.3.1. All Bonds and insurance required by the Contract Documents to be purchased and maintained by OWNER or CONTRACTOR shall be obtained from surety or insurance

companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue Bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.3.2. CONTRACTOR shall deliver to OWNER, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by OWNER or any other additional insured) which CONTRACTOR is required to purchase and maintain in accordance with paragraph 5.4. OWNER shall deliver to CONTRACTOR, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by CONTRACTOR or any other additional insured) which OWNER is required to purchase and maintain in accordance with paragraphs 5.6 and 5.7 hereof.

CONTRACTOR's Liability Insurance:

5.4. CONTRACTOR shall purchase and maintain such liability and other insurance as is appropriate for the Work being performed and furnished and as will provide protection from claims set forth below which may arise out of or result from CONTRACTOR's performance and furnishing of the Work and CONTRACTOR's other obligations under the Contract Documents, whether it is to be performed or furnished by CONTRACTOR, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform or furnish any of the Work, or by anyone for whose acts any of them may be liable:

5.4.1. claims under workers' compensation, disability benefits and other similar employee benefit acts;

5.4.2. claims for damages because of bodily injury, occupational sickness or disease, or death of CONTRACTOR's employees;

5.4.3. claims for damages because of bodily injury, sickness or disease, or death of any person other than CONTRACTOR's employees;

5.4.4. claims for damages insured by customary personal injury liability coverage which are sustained: (i) by any person as a result of an offense directly or indirectly related to the employment of such person by CONTRACTOR, or (ii) by any other person for any other reason;

5.4.5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and

5.4.6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

The policies of insurance so required by this paragraph 5.4 to be purchased and maintained shall:

5.4.7. with respect to insurance required by paragraphs 5.4.3 through 5.4.6 inclusive, include as additional insureds (subject to any customary exclusion in respect of professional liability) OWNER, ENGINEER, ENGINEER's Consultants and any other persons or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers and employees of all such additional insureds;

5.4.8. include the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;

5.4.9. include completed operations insurance;

5.4.10. include contractual liability insurance covering CONTRACTOR's indemnity obligations under paragraphs 6.12, 6.16 and 6.31 through 6.33;

5.4.11. contain a provision or endorsement that the coverage afforded will not be cancelled, materially changed or renewal refused until at least thirty days prior written notice has been given to OWNER and CONTRACTOR and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the CONTRACTOR pursuant to paragraph 5.3.2 will so provide);

5.4.12. remain in effect at least until final payment and at all times thereafter when CONTRACTOR may be correcting, removing or replacing defective Work in accordance with paragraph 13.12; and

5.4.13. with respect to completed operations insurance, and any insurance coverage written on a claims-made basis, remain in effect for at least two years after final payment (and CONTRACTOR shall furnish OWNER and each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued evidence satisfactory to OWNER and any such additional insured of continuation of such insurance at final payment and one year thereafter).

OWNER's Liability Insurance:

5.5. In addition to the insurance required to be provided by CONTRACTOR under paragraph 5.4, OWNER, at OWNER's option, may purchase and maintain at OWNER's expense OWNER's own liability insurance as will protect OWNER against claims which may arise from operations under the Contract Documents.

Property Insurance:

5.6. Unless otherwise provided in the Supplementary Conditions, OWNER shall purchase and maintain property insur-

ance upon the Work at the site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

5.6.1. include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and any other persons or entities identified in the Supplementary Conditions, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;

5.6.2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework and Work in transit and shall insure against at least the following perils fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, and such other perils as may be specifically required by the Supplementary Conditions;

5.6.3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);

5.6.4. cover materials and equipment stored at the site or at another location that was agreed to in writing by OWNER prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by ENGINEER; and

5.6.5. be maintained in effect until final payment is made unless otherwise agreed to in writing by OWNER, CONTRACTOR and ENGINEER with thirty days written notice to each other additional insured to whom a certificate of insurance has been issued.

5.7. OWNER shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and any other persons or entities identified in the Supplementary Conditions, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured.

5.8. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained by OWNER in accordance with paragraphs 5.6 and 5.7 will contain a provision or endorsement that the coverage afforded will not be cancelled or materially changed or renewal refused until at least thirty days' prior written notice has been given to OWNER and CONTRACTOR and to each other additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with paragraph 5.11.

5.9. OWNER shall not be responsible for purchasing and maintaining any property insurance to protect the interests of CONTRACTOR, Subcontractors or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount, will be borne by CONTRACTOR, Subcontractor or others suffering any such loss and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

5.10. If CONTRACTOR requests in writing that other special insurance be included in the property insurance policies provided under paragraphs 5.6 or 5.7, OWNER shall, if possible, include such insurance, and the cost thereof will be charged to CONTRACTOR by appropriate Change Order or Written Amendment. Prior to commencement of the Work at the site, OWNER shall in writing advise CONTRACTOR whether or not such other insurance has been procured by OWNER.

5.11. Waiver of Rights:

5.11.1. OWNER and CONTRACTOR intend that all policies purchased in accordance with paragraphs 5.6 and 5.7 will protect OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and all other persons or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds in such policies and will provide primary coverage for all losses and damages caused by the perils covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder. OWNER and CONTRACTOR waive all rights against each other and their respective officers, directors, employees and agents for all losses and damages caused by, arising out of or resulting from any of the perils covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors, ENGINEER, ENGINEER's Consultants and all other persons or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by OWNER as trustee or otherwise payable under any policy so issued.

5.11.2. In addition, OWNER waives all rights against CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and the officers, directors, employees and agents of any of them, for:

5.11.2.1. loss due to business interruption, loss of use or other consequential loss extending beyond direct physical loss or damage to OWNER's property or the Work caused by, arising out of or resulting from fire or other peril, whether or not insured by OWNER; and

5.11.2.2. loss or damage to the completed Project or part thereof caused by, arising out of or resulting from fire or other insured peril covered by any property insurance maintained on the completed Project or part thereof by OWNER during partial utilization pursuant to paragraph 14.10, after substantial completion pursuant to paragraph 14.8 or after final payment pursuant to paragraph 14.13.

Any insurance policy maintained by OWNER covering any loss, damage or consequential loss referred to in this paragraph 5.11.2 shall contain provisions to the effect that in the event of payment of any such loss, damage or consequential loss the insurers will have no rights of recovery against any of CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and the officers, directors, employees and agents of any of them.

Receipt and Application of Insurance Proceeds

5.12. Any insured loss under the policies of insurance required by paragraphs 5.6 and 5.7 will be adjusted with OWNER and made payable to OWNER as fiduciary for the insureds, as their interests may appear, subject to the requirements of any applicable mortgage clause and of paragraph 5.13. OWNER shall deposit in a separate account any money so received, and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof and the Work and the cost thereof covered by an appropriate Change Order or Written Amendment.

5.13. OWNER as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within fifteen days after the occurrence of loss to OWNER's exercise of this power. If such objection be made, OWNER as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, OWNER as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, OWNER as fiduciary shall give bond for the proper performance of such duties.

Acceptance of Bonds and Insurance; Option to Replace:

5.14. If either party (OWNER or CONTRACTOR) has any objection to the coverage afforded by or other provisions of the Bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within ten days after receipt of the certificates (or other evidence requested) required by paragraph 2.7. OWNER and CONTRACTOR shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the Bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent Bonds or insurance to protect such other party's interests at the expense of the party who was

required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

Partial Utilization—Property Insurance:

5.15. If OWNER finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, such use or occupancy may be accomplished in accordance with paragraph 14.10; provided that no such use or occupancy shall commence before the insurers providing the property insurance have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be cancelled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6—CONTRACTOR'S RESPONSIBILITIES

Supervision and Superintendence:

6.1. CONTRACTOR shall supervise, inspect 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 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 specification of a specific means, method, technique, sequence or procedure of construction which is shown or indicated in and expressly required by the Contract Documents. CONTRACTOR shall be responsible to see that the completed Work complies accurately with the Contract Documents.

6.2. 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 ENGINEER 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 to the superintendent shall be as binding as if given to CONTRACTOR.

Labor, Materials and Equipment:

6.3. CONTRACTOR shall provide competent, suitably qualified personnel to survey, lay out and construct the Work as required by the Contract Documents. CONTRACTOR shall at all times maintain good discipline and order at the site. Except as otherwise required for 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 ENGINEER.

6.4. Unless otherwise specified in the General Requirements, 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.

6.5. All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. All warranties and guarantees specifically called for by the Specifications shall expressly run to the benefit of OWNER. If required by ENGINEER, 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 instructions of the applicable Supplier, except as otherwise provided in the Contract Documents.

Progress Schedule:

6.6. CONTRACTOR shall adhere to the progress schedule established in accordance with paragraph 2.9 as it may be adjusted from time to time as provided below:

6.6.1. CONTRACTOR shall submit to ENGINEER for acceptance (to the extent indicated in paragraph 2.9) proposed adjustments in the progress schedule that will not change the Contract Times (or Milestones). Such adjustments will conform generally to the progress schedule then in effect and additionally will comply with any provisions of the General Requirements applicable thereto.

6.6.2. Proposed adjustments in the progress schedule that will change the Contract Times (or Milestones) shall be submitted in accordance with the requirements of paragraph 12.1. Such adjustments may only be made by a Change Order or Written Amendment in accordance with Article 12.

6.7. Substitutes and "Or-Equal" Items:

6.7.1. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be accepted by ENGINEER under the following circumstances:

6.7.1.1. "Or-Equal": If in ENGINEER's sole discretion an item of material or equipment proposed by CONTRACTOR is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by ENGINEER as an "or-equal" item, in which case review and approval of the proposed item may, in ENGINEER's sole discretion, be accomplished without compliance with some or all of the requirements for acceptance of proposed substitute items.

6.7.1.2. *Substitute Items*: If in ENGINEER's sole discretion an item of material or equipment proposed by CONTRACTOR does not qualify as an "or-equal" item under subparagraph 6.7.1.1, it will be considered a proposed substitute item. CONTRACTOR shall submit sufficient information as provided below to allow ENGINEER to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. The procedure for review by the ENGINEER will include the following as supplemented in the General Requirements and as ENGINEER may decide is appropriate under the circumstances. Requests for review of proposed substitute items of material or equipment will not be accepted by ENGINEER from anyone other than CONTRACTOR. If CONTRACTOR wishes to furnish or use a substitute item of material or equipment, CONTRACTOR shall first make written application to ENGINEER 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 in substance to that specified and be suited to the same use as that specified. The application will state the extent, if any, to which the evaluation and acceptance of the proposed substitute will prejudice CONTRACTOR's achievement of Substantial 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 or credits 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 will be considered by ENGINEER in evaluating the proposed substitute. ENGINEER may require CONTRACTOR to furnish additional data about the proposed substitute.

6.7.1.3. *CONTRACTOR's Expense*: All data to be provided by CONTRACTOR in support of any proposed "or-equal" or substitute item will be at CONTRACTOR's expense.

6.7.2. *Substitute Construction Methods or Procedures*: If a specific means, method, technique, sequence or procedure of

construction is shown or indicated in and expressly required by the Contract Documents, CONTRACTOR may furnish or utilize a substitute means, method, technique, sequence or procedure of construction acceptable to ENGINEER. CONTRACTOR shall submit sufficient information to allow ENGINEER, in ENGINEER's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The procedure for review by ENGINEER will be similar to that provided in subparagraph 6.7.1.2.

6.7.3. *Engineer's Evaluation*: ENGINEER will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to paragraphs 6.7.1.2 and 6.7.2. ENGINEER will be the sole judge of acceptability. No "or-equal" or substitute will be ordered, installed or utilized without ENGINEER'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 "or-equal" or substitute. ENGINEER will record time required by ENGINEER and ENGINEER's Consultants in evaluating substitutes proposed or submitted by CONTRACTOR pursuant to paragraphs 6.7.1.2 and 6.7.2 and in making changes in the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) occasioned thereby. Whether or not ENGINEER accepts a substitute item so proposed or submitted by CONTRACTOR, CONTRACTOR shall reimburse OWNER for the charges of ENGINEER and ENGINEER's Consultants for evaluating each such proposed substitute item.

Concerning Subcontractors, Suppliers and Others:

6.8.1. CONTRACTOR shall not employ any Subcontractor, Supplier or other person or organization (including those acceptable to OWNER and ENGINEER as indicated in paragraph 6.8.2), whether initially or as a substitute, against whom OWNER or ENGINEER 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.

6.8.2. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers or other persons or organizations (including those who are to furnish the principal items of materials or 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 ENGINEER, and if CONTRACTOR has submitted a list thereof in accordance with the Supplementary Conditions, OWNER's or ENGINEER'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, the Contract Price will be adjusted by the difference in the cost occasioned by such

substitution and an appropriate Change Order will be issued or Written Amendment signed. No acceptance by OWNER or ENGINEER of any such Subcontractor, Supplier or other person or organization shall constitute a waiver of any right of OWNER or ENGINEER to reject *defective Work*.

6.9.1. CONTRACTOR shall be fully responsible to OWNER and ENGINEER 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 for the benefit of any such Subcontractor, Supplier or other person or organization any contractual relationship between OWNER or ENGINEER and any such Subcontractor, Supplier or other person or organization, nor shall it create any obligation on the part of OWNER or ENGINEER 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.

6.9.2. CONTRACTOR shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR. CONTRACTOR shall require all Subcontractors, Suppliers and such other persons and organizations performing or furnishing any of the Work to communicate with the ENGINEER through CONTRACTOR.

6.10. 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.

6.11. All Work performed for CONTRACTOR by a Subcontractor or Supplier will be pursuant to an appropriate agreement between CONTRACTOR and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of OWNER and ENGINEER. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in paragraph 5.6 or 5.7, the agreement between the CONTRACTOR and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against OWNER, CONTRACTOR, ENGINEER, ENGINEER's Consultants and all other additional insureds for all losses and damages caused by, arising out of or resulting from any of the perils covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, CONTRACTOR will obtain the same.

Patent Fees and Royalties:

6.12. 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. If a particular invention, design, process, product or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of OWNER or ENGINEER its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by OWNER in the Contract Documents. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants and the officers, directors, employees, agents and other consultants of each and any of them from and against all claims, costs, losses and damages arising out of or resulting from any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product or device not specified in the Contract Documents.

Permits:

6.13. Unless otherwise provided in the Supplementary 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.

Laws and Regulations:

6.14.1. 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 ENGINEER shall be responsible for monitoring CONTRACTOR's compliance with any Laws or Regulations.

6.14.2. If CONTRACTOR performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, CONTRACTOR shall bear all claims, costs, losses and damages caused by, arising out of or resulting therefrom; however, it shall not be CONTRACTOR's primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve CONTRACTOR of CONTRACTOR's obligations under paragraph 3.3.2.

Taxes:

6.15. 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.

Use of Premises:

6.16. CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workers to the site and land and 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 adjacent land or areas, resulting from the performance of the Work. Should any claim be made by any such owner or occupant because of the performance of the Work, CONTRACTOR shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law. CONTRACTOR shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultant and anyone directly or indirectly employed by any of them from and against all claims, costs, losses and damages arising out of or resulting from any claim or action, legal or equitable, brought by any such owner or occupant against OWNER, ENGINEER or any other party indemnified hereunder to the extent caused by or based upon CONTRACTOR's performance of the Work.

6.17. 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. CONTRACTOR shall leave the site clean and ready for occupancy by OWNER at Substantial Completion of the Work. CONTRACTOR shall restore to original condition all property not designated for alteration by the Contract Documents.

6.18. 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.

Record Documents:

6.19. CONTRACTOR shall maintain in a safe place at the site one record copy of all Drawings, Specifications, Addenda, Written Amendments, Change Orders, Work Change Directives, 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 ENGINEER for reference. Upon completion of

the Work, these record documents, Samples and Shop Drawings will be delivered to ENGINEER for OWNER.

Safety and Protection:

6.20. CONTRACTOR shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

6.20.1. all persons on the Work site or who may be affected by the Work;

6.20.2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the site; and

6.20.3. other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and Underground Facilities not designated for removal, relocation or replacement in the course of construction.

CONTRACTOR shall comply with all applicable Laws and Regulations of any public body having jurisdiction for safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and of Underground Facilities and utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss to any property referred to in paragraph 6.20.2 or 6.20.3 caused, directly or indirectly, in whole or in part, by CONTRACTOR, any Subcontractor, Supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, shall be remedied by CONTRACTOR (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of OWNER or ENGINEER or ENGINEER's Consultant or anyone employed by any of them or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of CONTRACTOR or any Subcontractor, Supplier or other person or organization directly or indirectly employed by any of them). CONTRACTOR's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and ENGINEER has issued a notice to OWNER and CONTRACTOR in accordance with paragraph 14.13 that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

Safety Representative:

6.21. CONTRACTOR shall designate a qualified and experienced safety representative at the site whose duties and

responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

Hazard Communication Programs:

6.22. CONTRACTOR shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the site in accordance with Laws or Regulations.

Emergencies:

6.23. In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, CONTRACTOR, without special instruction or authorization from OWNER or ENGINEER, is obligated to act to prevent threatened damage, injury or loss. CONTRACTOR shall give ENGINEER prompt written notice if CONTRACTOR believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If ENGINEER determines that a change in the Contract Documents is required because of the action taken by CONTRACTOR in response to such an emergency, a Work Change Directive or Change Order will be issued to document the consequences of such action.

6.24. Shop Drawings and Samples:

6.24.1. CONTRACTOR shall submit Shop Drawings to ENGINEER for review and approval in accordance with the accepted schedule of Shop Drawings and Sample submittals (see paragraph 2.9). All submittals will be identified as ENGINEER may require and in the number of copies specified in the General Requirements. 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 show ENGINEER the materials and equipment CONTRACTOR proposes to provide and to enable ENGINEER to review the information for the limited purposes required by paragraph 6.26.

6.24.2. CONTRACTOR shall also submit Samples to ENGINEER for review and approval in accordance with said accepted schedule of Shop Drawings and Sample submittals. Each Sample will be identified clearly as to material, Supplier, pertinent data such as catalog numbers and the use for which intended and otherwise as ENGINEER may require to enable ENGINEER to review the submittal for the limited purposes required by paragraph 6.26. The numbers of each Sample to be submitted will be as specified in the Specifications.

6.25. Submittal Procedures:

6.25.1. Before submitting each Shop Drawing or Sample, CONTRACTOR shall have determined and verified:

6.25.1.1. all field measurements, quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers and similar information with respect thereto,

6.25.1.2. all materials with respect to intended use, fabrication, shipping, handling, storage, assembly and installation pertaining to the performance of the Work, and

6.25.1.2. all information relative to CONTRACTOR's sole responsibilities in respect of means, methods, techniques, sequences and procedures of construction and safety precautions and programs incident thereto.

CONTRACTOR shall also have reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.

6.25.2. Each submittal will bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR's obligations under the Contract Documents with respect to CONTRACTOR'S review and approval of that submittal.

6.25.3. At the time of each submission, CONTRACTOR shall give ENGINEER specific written notice of such variations, if any, that the Shop Drawing or Sample submitted may have from the requirements of the Contract Documents, such notice to be in a written communication separate from the submittal; and, in addition, shall cause a specific notation to be made on each Shop Drawing and Sample submitted to ENGINEER for review and approval of each such variation.

6.26. ENGINEER will review and approve Shop Drawings and Samples in accordance with the schedule of Shop Drawings and Sample submittals accepted by ENGINEER as required by paragraph 2.9. ENGINEER's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. ENGINEER's review and approval will not extend to means, methods, techniques, sequences or procedures of construction (except where a particular means, method, technique, sequence or procedure of construction is specifically and expressly called for 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 ENGINEER, 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 ENGINEER on previous submittals.

6.27. ENGINEER'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 ENGINEER's attention to each such variation at the time of submission as required by paragraph 6.25.3 and ENGINEER has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample approval; nor will any approval by ENGINEER relieve CONTRACTOR from responsibility for complying with the requirements of paragraph 6.25.1.

6.28. Where a Shop Drawing or Sample is required by the Contract Documents or the schedule of Shop Drawings and Sample submissions accepted by ENGINEER as required by paragraph 2.9, any related Work performed prior to ENGINEER's review and approval of the pertinent submittal will be at the sole expense and responsibility of CONTRACTOR.

Continuing the Work:

6.29. 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 resolution of any disputes or disagreements, except as permitted by paragraph 15.5 or as OWNER and CONTRACTOR may otherwise agree in writing.

6.30. CONTRACTOR's General Warranty and Guarantee:

6.30.1. CONTRACTOR warrants and guarantees to OWNER, ENGINEER and ENGINEER's Consultants that all Work will be in accordance with the Contract Documents and will not be defective. CONTRACTOR's warranty and guarantee hereunder excludes defects or damage caused by:

6.30.1.1. abuse, modification or improper maintenance or operation by persons other than CONTRACTOR, Subcontractors or Suppliers; or

6.30.1.2. normal wear and tear under normal usage.

6.30.2. CONTRACTOR's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of CONTRACTOR's obligation to perform the Work in accordance with the Contract Documents:

6.30.2.1. observations by ENGINEER;

6.30.2.3. recommendation of any progress or final payment by ENGINEER;

6.30.2.3. the issuance of a certificate of Substantial Completion or any payment by OWNER to CONTRACTOR under the Contract Documents;

6.30.2.4. use or occupancy of the Work or any part thereof by OWNER;

6.30.2.5. any acceptance by OWNER or any failure to do so;

6.30.2.6. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by ENGINEER pursuant to paragraph 14.13;

6.30.2.7. any inspection, test or approval by others; or

6.30.2.8. any correction of defective Work by OWNER.

Indemnification:

6.31. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants and the officers, directors, employees, agents and other consultants of each and any of them from and against all claims, costs, losses and damages (including but not limited to all fees and charges of engineers, architects, attorneys and other professionals and all court or arbitration or other dispute resolution costs) caused by, arising out of or resulting from the performance of the Work, provided that any such claim, cost, loss or damage: (i) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, and (ii) is caused in whole or in part by any negligent act or omission of CONTRACTOR, any Subcontractor, any Supplier, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, regardless of whether or not caused in part by any negligence or omission of a person or entity indemnified hereunder or whether liability is imposed upon such indemnified party by Laws and Regulations regardless of the negligence of any such person or entity.

6.32. In any and all claims against OWNER or ENGINEER or any of their respective consultants, agents, officers, directors or employees by any employee (or the survivor or personal representative of such employee) of CONTRACTOR, any Subcontractor, any Supplier, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph 6.31 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for CONTRACTOR or any such Subcontractor, Supplier or other person or organization under workers' compensation acts, disability benefit acts or other employee benefit acts.

6.33. The indemnification obligations of CONTRACTOR under paragraph 6.31 shall not extend to the liability of ENGINEER and ENGINEER's Consultants, officers, directors, employees or agents caused by the professional negligence, errors or omissions of any of them.

Survival of Obligations:

6.34. All representations, indemnifications, warranties and guarantees made in, required by or given in accordance with

the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion and acceptance of the Work and termination or completion of the Agreement.

ARTICLE 7—OTHER WORK

Related Work at Site:

7.1. OWNER may perform other work related to the Project at the site by OWNER's own forces, or let other direct contracts therefor which shall contain General Conditions similar to these, or have other work performed by utility owners. If the fact that such other work is to be performed was not noted in the Contract Documents, then: (i) written notice thereof will be given to CONTRACTOR prior to starting any such other work, and (ii) CONTRACTOR may make a claim therefor as provided in Articles 11 and 12 if CONTRACTOR believes that such performance will involve additional expense to CONTRACTOR or requires additional time and the parties are unable to agree as to the amount or extent thereof.

7.2. CONTRACTOR shall afford each other contractor who is a party to such a direct contract and each utility owner (and 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 other work and shall properly connect and coordinate the Work with theirs. Unless otherwise provided in the Contract Documents, 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 ENGINEER 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.

7.3. If the proper execution or results of any part of CONTRACTOR's Work depends upon work performed by others under this Article 7, CONTRACTOR shall inspect such other work and promptly report to ENGINEER in writing any delays, defects or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of CONTRACTOR's Work. CONTRACTOR's failure so to report will constitute an acceptance of such other work as fit and proper for integration with CONTRACTOR's Work except for latent or nonapparent defects and deficiencies in such other work.

Coordination:

7.4. IF OWNER contracts with others for the performance of other work on the Project at the site, the following will be set forth in Supplementary Conditions:

7.4.1. the person, firm or corporation who will have authority and responsibility for coordination of the activities among the various prime contractors will be identified;

7.4.2. the specific matters to be covered by such authority and responsibility will be itemized; and

7.4.3. the extent of such authority and responsibilities will be provided.

Unless otherwise provided in the Supplementary Conditions, OWNER shall have sole authority and responsibility in respect of such coordination.

ARTICLE 8—OWNER'S RESPONSIBILITIES

8.1. Except as otherwise provided in these General Conditions, OWNER shall issue all communications to CONTRACTOR through ENGINEER.

8.2. In case of termination of the employment of ENGINEER, OWNER shall appoint an engineer against whom CONTRACTOR makes no reasonable objection, whose status under the Contract Documents shall be that of the former ENGINEER.

8.3. OWNER shall furnish the data required of OWNER under the Contract Documents promptly and shall make payments to CONTRACTOR promptly when they are due as provided in paragraphs 14.4 and 14.13.

8.4. 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 drawings of physical conditions in existing structures at or contiguous to the site that have been utilized by ENGINEER in preparing the Contract Documents.

8.5. OWNER's responsibilities in respect of purchasing and maintaining liability and property insurance are set forth in paragraphs 5.5 through 5.10.

8.6. OWNER is obligated to execute Change Orders as indicated in paragraph 10.4.

8.7. OWNER's responsibility in respect of certain inspections, tests and approvals is set forth in paragraph 13.4.

8.8. In connection with OWNER's right to stop Work or suspend Work, see paragraphs 13.10 and 15.1. Paragraph 15.2 deals with OWNER's right to terminate services of CONTRACTOR under certain circumstances.

8.9. The OWNER shall not supervise, direct or have control or authority over, nor be responsible for, CONTRACTOR's means, methods, techniques, sequences or procedures of construction or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the furnishing or performance of the Work. OWNER will not be responsible for CONTRACTOR's failure to perform or furnish the Work in accordance with the Contract Documents.

8.10. OWNER'S responsibility in respect of undisclosed Asbestos, PCBs, Petroleum, Hazardous Waste or Radioactive Materials uncovered or revealed at the site is set forth in paragraph 4.5.

8.11. If and to the extent OWNER has agreed to furnish CONTRACTOR reasonable evidence that financial arrangements have been made to satisfy OWNER's obligations under the Contract Documents, OWNER's responsibility in respect thereof will be as set forth in the Supplementary Conditions.

ARTICLE 9—ENGINEER'S STATUS DURING CONSTRUCTION

OWNER's Representative:

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

Visits to Site:

9.2. ENGINEER will make visits to the site at intervals appropriate to the various stages of construction as ENGINEER deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of CONTRACTOR's executed Work. Based on information obtained during such visits and observations, ENGINEER will endeavor for the benefit of OWNER to determine, in general, if the Work is proceeding in accordance with the Contract Documents. ENGINEER will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. ENGINEER's efforts will be directed toward providing for OWNER a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and on-site observations, ENGINEER will keep OWNER informed of the progress of the Work and will endeavor to guard OWNER against defective Work. ENGINEER's visits and on-site observations are subject to all the limitations on ENGINEER's authority and responsibility set forth in paragraph 9.13, and particularly, but without limitation, during or as a result of ENGINEER's on-site visits or

observations of CONTRACTOR's Work ENGINEER will not supervise, direct, control or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the furnishing or performance of the Work.

Project Representative:

9.3. If OWNER and ENGINEER agree, ENGINEER will furnish a Resident Project Representative to assist ENGINEER in providing more continuous observation of the Work. The responsibilities and authority and limitations thereon of any such Resident Project Representative and assistants will be as provided in paragraph 9.13 and in the Supplementary Conditions. If OWNER designates another representative or agent to represent OWNER at the site who is not ENGINEER's Consultant, agent or employee, the responsibilities and authority and limitations thereon of such other person will be as provided in the Supplementary Conditions.

Clarifications and Interpretations:

9.4. ENGINEER 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 ENGINEER may determine necessary, which shall be consistent with the intent of and reasonably inferable from Contract Documents. Such written clarifications and interpretations will be binding on OWNER and CONTRACTOR. If OWNER or CONTRACTOR believes that a written clarification or interpretation justifies an adjustment in the Contract Price or the Contract Times and the parties are unable to agree to the amount or extent thereof, if any, OWNER or CONTRACTOR may make a written claim therefor as provided in Article 11 or Article 12.

Authorized Variations in Work:

9.5. ENGINEER 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 Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on OWNER and also on CONTRACTOR who shall perform the Work involved promptly. If OWNER or CONTRACTOR believes that a Field Order justifies an adjustment in the Contract Price or the Contract Times and the parties are unable to agree as to the amount or extent thereof, OWNER or CONTRACTOR may make a written claim therefor as provided in Article 11 or 12.

Rejecting Defective Work:

9.6. ENGINEER will have authority to disapprove or reject Work which ENGINEER believes to be *defective*, or

that ENGINEER believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. ENGINEER will also have authority to require special inspection or testing of the Work as provided in paragraph 13.9, whether or not the Work is fabricated, installed or completed.

Shop Drawings, Change Orders and Payments:

9.7. In connection with ENGINEER's authority as to Shop Drawings and Samples, see paragraphs 6.24 through 6.28 inclusive.

9.8. In connection with ENGINEER's authority as to Change Orders, see Articles 10, 11, and 12.

9.9. In connection with ENGINEER's authority as to Applications for Payment, see Article 14.

Determinations for Unit Prices:

9.10. ENGINEER will determine the actual quantities and classifications of Unit Price Work performed by CONTRACTOR. ENGINEER will review with CONTRACTOR the ENGINEER's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). ENGINEER's written decision thereon will be final and binding upon OWNER and CONTRACTOR, unless, within ten days after the date of any such decision, either OWNER or CONTRACTOR delivers to the other and to ENGINEER written notice of intention to appeal from ENGINEER's decision and: (i) an appeal from ENGINEER's decision is taken within the time limits and in accordance with the procedures set forth in Exhibit GC-A, "Dispute Resolution Agreement," entered into between OWNER and CONTRACTOR pursuant to Article 16, or (ii) if no such Dispute Resolution Agreement has been entered into, a formal proceeding is instituted by the appealing party in a forum of competent jurisdiction to exercise such rights or remedies as the appealing party may have with respect to ENGINEER's decision, unless otherwise agreed in writing by OWNER and CONTRACTOR. Such appeal will not be subject to the procedures of paragraph 9.11.

Decisions on Disputes:

9.11. ENGINEER 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 11 and 12 in respect of changes in the Contract Price or Contract Times will be referred initially to ENGINEER in writing with a request for a formal decision in accordance with this paragraph. Written notice of each such claim, dispute or other matter will be delivered by the claimant

to ENGINEER and the other party to the Agreement promptly (but in no event later than thirty days) after the start of the occurrence or event giving rise thereto, and written supporting data will be submitted to ENGINEER and the other party within sixty days after the start of such occurrence or event unless ENGINEER allows an additional period of time for the submission of additional or more accurate data in support of such claim, dispute or other matter. The opposing party shall submit any response to ENGINEER and the claimant within thirty days after receipt of the claimant's last submittal (unless ENGINEER allows additional time). ENGINEER will render a formal decision in writing within thirty days after receipt of the opposing party's submittal, if any, in accordance with this paragraph. ENGINEER's written decision on such claim, dispute or other matter will be final and binding upon OWNER and CONTRACTOR unless: (i) an appeal from ENGINEER's decision is taken within the time limits and in accordance with the procedures set forth in EXHIBIT GC-A, "Dispute Resolution Agreement," entered into between OWNER and CONTRACTOR pursuant to Article 16, or (ii) if no such Dispute Resolution Agreement has been entered into, a written notice of intention to appeal from ENGINEER's written decision is delivered by OWNER or CONTRACTOR to the other and to ENGINEER within thirty days after the date of such decision and a formal proceeding is instituted by the appealing party in a forum of competent jurisdiction to exercise such rights or remedies as the appealing party may have with respect to such claim, dispute or other matter in accordance with applicable Laws and Regulations within sixty days of the date of such decision, unless otherwise agreed in writing by OWNER and CONTRACTOR.

9.12. When functioning as interpreter and judge under paragraphs 9.10 and 9.11, ENGINEER will not show partiality to OWNER or CONTRACTOR and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity. The rendering of a decision by ENGINEER pursuant to paragraphs 9.10 or 9.11 with respect to any such claim, dispute or other matter (except any which have been waived by the making or acceptance of final payment as provided in paragraph 14.15) will be a condition precedent to any exercise by OWNER or CONTRACTOR of such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any such claim, dispute or other matter pursuant to Article 16.

9.13. Limitations on ENGINEER's Authority and Responsibilities:

9.13.1. Neither ENGINEER's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by ENGINEER in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise or performance of any authority or responsibility by ENGINEER shall create, impose or give rise to any duty owed by ENGINEER to CONTRACTOR, any Subcontractor, any Supplier, any other person or organization, or to any surety for or employee or agent of any of them.

9.13.2. ENGINEER will not supervise, direct, control or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the furnishing or performance of the Work. ENGINEER will not be responsible for CONTRACTOR's failure to perform or furnish the Work in accordance with the Contract Documents.

9.13.3. ENGINEER 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.

9.13.4. ENGINEER's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds and certificates of inspection, tests and approvals and Other documentation required to be delivered by paragraph 14.12 will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests and approvals that the results certified indicate compliance with, the Contract Documents.

9.13.5. The limitations upon authority and responsibility set forth in this paragraph 9.13 shall also apply to ENGINEER's Consultants, Resident Project Representative and assistants.

ARTICLE 10—CHANGES IN THE WORK

10.1. 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. Such additions, deletions or revisions will be authorized by a Written Amendment, a Change Order, or a Work Change Directive. Upon receipt of any such document, 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).

10.2. If OWNER and CONTRACTOR are unable to agree as to the extent, if any, of an adjustment in the Contract Price or an adjustment of the Contract Times that should be allowed as a result of a Work Change Directive, a claim may be made therefor as provided in Article 11 or Article 12.

10.3. CONTRACTOR shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any Work performed that is not required by the Contract Documents as amended, modified and supplemented as provided in paragraphs 3.5 and 3.6 except in the case of an emergency as provided in paragraph 6.23 or in the case of uncovering Work as provided in paragraph 13.9.

10.4. OWNER and CONTRACTOR shall execute appropriate Change Orders recommended by ENGINEER (or Written Amendments) covering:

10.4.1. changes in the Work which are (i) ordered by OWNER pursuant to paragraph 10.1, (ii) required because of acceptance of defective Work under paragraph 13.13 or correcting defective Work under paragraph 13.14, or (iii) agreed to by the parties;

10.4.2. changes in the Contract Price or Contract Times which are agreed to by the parties; and

10.4.3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by ENGINEER pursuant to paragraph 9.11;

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 6.29.

10.5. 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 Times) 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.

ARTICLE 11—CHANGE OF CONTRACT PRICE

11.1. 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 CONTRACTOR's expense without change in the Contract Price.

11.2. The Contract Price may only be changed by a Change Order or by a Written Amendment. Any claim for an adjustment in the Contract Price shall be based on written notice delivered by the party making the claim to the other party and to ENGINEER promptly (but in no event later than thirty days) after the start of the occurrence or 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 the start of such occurrence or event (unless ENGINEER allows additional time for claimant to submit additional or more accurate data in support of the claim) and shall be accompanied by claimant's written statement that the adjustment claimed covers all known amounts to which the claimant is entitled as a result of said occurrence or event. All claims for adjustment in the Contract Price shall be determined by ENGINEER in accordance with paragraph 9.11 if OWNER and CONTRACTOR cannot otherwise agree on the amount involved. No claim for an adjustment in the Contract Price will

be valid if not submitted in accordance with this paragraph 11.2.

11.3. The value of any Work covered by a Change Order or of any claim for an adjustment in the Contract Price will be determined as follows:

11.3.1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of paragraphs 11.9.1 through 11.9.3, inclusive);

11.3.2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with paragraph 11.6.2);

11.3.3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under paragraph 11.3.2, on the basis of the Cost of the Work (determined as provided in paragraphs 11.4 and 11.5) plus a CONTRACTOR's fee for overhead and profit (determined as provided in paragraph 11.6).

Cost of the Work:

11.4. 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 11.5:

11.4.1. 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. Such employees shall include without limitation superintendents, foremen and other personnel employed full-time at the site. 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' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. 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.

11.4.2. 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 returns from sale of surplus materials and equipment shall accrue to OWNER, and CONTRACTOR shall make provisions so that they may be obtained.

11.4.3. Payments made by CONTRACTOR to the Subcontractors for Work performed or furnished by Subcontractors. If required by OWNER, CONTRACTOR shall obtain competitive bids from subcontractors acceptable to OWNER and CONTRACTOR and shall deliver such bids to OWNER who will then determine, with the advice of ENGINEER, which bids, if any, will be accepted. If any 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 and fee shall be determined in the same manner as CONTRACTOR's Cost of the Work and fee as provided in paragraphs 11.4, 11.5, 11.6 and 11.7. All subcontracts shall be subject to the other provisions of the Contract Documents insofar as applicable.

11.4.4. 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.

11.4.5. Supplemental costs including the following:

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

11.4.5.2. 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.

11.4.5.3. 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 ENGINEER, and the costs of transportation, loading, unloading, installation, dismantling and removal thereof—all in accordance with the 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.

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

11.4.5.5. 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.

11.4.5.6. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance 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 in accordance with paragraph 5.9), 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 for services a fee proportionate to that stated in paragraph 11.6.2.

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

11.4.5.8. 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.

11.4.5.9. Cost of premiums for additional Bonds and insurance required because of changes in the Work.

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

11.5.1. 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 11.4.1 or specifically covered by paragraph 11.4.4—all of which are to be considered administrative costs covered by the CONTRACTOR's fee.

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

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

11.5.4. 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 11.4.5.9 above).

11.5.5. 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.

Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraph 11.4.

11.6. The CONTRACTOR's fee allowed to CONTRACTOR for overhead and profit shall be determined as follows:

11.6.1. a mutually acceptable fixed fee; or

11.6.2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

11.6.2.1. for costs incurred under paragraphs 11.4.1 and 11.4.2, the CONTRACTOR's fee shall be fifteen percent;

11.6.2.2. for costs incurred under paragraph 11.4.3, the CONTRACTOR's fee shall be five percent;

11.6.2.3. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of paragraphs 11.4.1, 11.4.2, 11.4.3 and 11.6.2 is that the Subcontractor who actually performs or furnishes the Work, at whatever tier, will be paid a fee of fifteen percent of the costs incurred by such Subcontractor under paragraphs 11.4.1 and 11.4.2 and that any higher tier Subcontractor and CONTRACTOR will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;

11.6.2.4. no fee shall be payable on the basis of costs itemized under paragraphs 11.4.4, 11.4.5 and 11.5;

11.6.2.5. the amount of credit to be allowed by CONTRACTOR to OWNER for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in CONTRACTOR's fee by an amount equal to five percent of such net decrease; and

11.6.2.6. 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 11.6.2.1 through 11.6.2.5, inclusive.

11.7. Whenever the cost of any Work is to be determined pursuant to paragraphs 11.4 and 11.5, CONTRACTOR will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in form acceptable to ENGINEER an itemized cost breakdown together with supporting data.

Cash Allowances:

11.8. 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 furnished and performed for such sums as may be acceptable to OWNER and ENGINEER. CONTRACTOR agrees that:

11.8.1. 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

11.8.2. 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 and no demand for additional payment on account of any of the foregoing will be valid.

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

11.9. Unit Price Work:

11.9.1. 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 price 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 ENGINEER in accordance with paragraph 9.10.

11.9.2. 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.

11.9.3. OWNER or CONTRACTOR may make a claim for an adjustment in the Contract Price in accordance with Article 11 if:

11.9.3.1. 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

11.9.3.2. there is no corresponding adjustment with respect to any other item of Work; and

11.9.3.3. if CONTRACTOR believes that CONTRACTOR is entitled to an increase in Contract Price as a result

of having incurred additional expense or OWNER believes that OWNER is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12—CHANGE OF CONTRACT TIMES

12.1. The Contract Times (or Milestones) may only be changed by a Change Order or a Written Amendment. Any claim for an adjustment of the Contract Times (or Milestones) shall be based on written notice delivered by the party making the claim to the other party and to ENGINEER 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 ENGINEER 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 Times (or Milestones) shall be determined by ENGINEER in accordance with paragraph 9.11 if OWNER and CONTRACTOR cannot otherwise agree. No claim for an adjustment in the Contract Times (or Milestones) will be valid if not submitted in accordance with the requirements of this paragraph 12.1.

12.2. All time limits stated in the Contract Documents are of the essence of the Agreement.

12.3. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of CONTRACTOR, the Contract Times (or Milestones) will be extended in an amount equal to the time lost due to such delay if a claim is made therefor as provided in paragraph 12.1. Delays beyond the control of CONTRACTOR shall include, but not be limited to, acts or neglect by OWNER, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions or acts of God. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of CONTRACTOR.

12.4. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of both OWNER and CONTRACTOR, an extension of the Contract Times (or Milestones) in an amount equal to the time lost due to such delay shall be CONTRACTOR's sole and exclusive remedy for such delay. In no event shall OWNER be liable to CONTRACTOR, any Subcontractor, any Supplier, any other person or organization, or to any surety for or employee or agent of any of them, for damages arising out of or resulting from (i) delays caused by or within the control of CONTRACTOR, or (ii)

delays beyond the control of both parties including but not limited to fires, floods, epidemics, abnormal weather conditions, acts of God or acts or neglect by utility owners or other contractors performing other work as contemplated by Article 7.

**ARTICLE 13—TESTS AND INSPECTIONS;
CORRECTION, REMOVAL OR
ACCEPTANCE OF DEFECTIVE WORK**

13.1. *Notice of Defects:* Prompt notice of all defective Work of which OWNER or ENGINEER have actual knowledge will be given to CONTRACTOR. All defective Work may be rejected, corrected or accepted as provided in this Article 13.

Access to Work:

13.2. OWNER, ENGINEER, ENGINEER's Consultants, other representatives and personnel of OWNER, independent testing laboratories and governmental agencies with jurisdictional interests will have access to the Work at reasonable times for their observation, inspecting and testing. CONTRACTOR shall provide them proper and safe conditions for such access and advise them of CONTRACTOR's site safety procedures and programs so that they may comply therewith as applicable.

Tests and Inspections:

13.3. CONTRACTOR shall give ENGINEER timely notice of readiness of the Work for all required inspections, tests or approvals, and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

13.4. OWNER shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:

13.4.1. for inspections, tests or approvals covered by paragraph 13.5 below;

13.4.2. that costs incurred in connection with tests or inspections conducted pursuant to paragraph 13.9 below shall be paid as provided in said paragraph 13.9; and

13.4.3. as otherwise specifically provided in the Contract Documents.

13.5. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested or approved by an employee or other representative of such public body, CONTRACTOR shall assume full responsibility for arranging and obtaining such inspections, tests or approvals, pay all costs in connection therewith, and furnish ENGINEER the required certificates of inspection, or

approval. CONTRACTOR shall also be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests or approvals required for OWNER's and ENGINEER's acceptance of materials or equipment to be incorporated in the Work, or of materials, mix designs, or equipment submitted for approval prior to CONTRACTOR's purchase thereof for incorporation in the Work.

13.6. If any Work (or the work of others) that is to be inspected, tested or approved is covered by CONTRACTOR without written concurrence of ENGINEER, it must, if requested by ENGINEER, be uncovered for observation.

13.7. Uncovering Work as provided in paragraph 13.6 shall be at CONTRACTOR's expense unless CONTRACTOR has given ENGINEER timely notice of CONTRACTOR's intention to cover the same and ENGINEER has not acted with reasonable promptness in response to such notice.

Uncovering Work:

13.8. If any Work is covered contrary to the written request of ENGINEER, it must, if requested by ENGINEER, be uncovered for ENGINEER's observation and replaced at CONTRACTOR's expense.

13.9. If ENGINEER considers it necessary or advisable that covered Work be observed by ENGINEER or inspected or tested by others, CONTRACTOR, at ENGINEER's request, shall uncover, expose or otherwise make available for observation, inspection or testing as ENGINEER may require, that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is defective, CONTRACTOR shall pay all claims, costs, losses and damages caused by, arising out of or resulting from such uncovering, exposure, observation, inspection and testing and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and OWNER shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, may make a claim therefor as provided in Article 11. If, however, such Work is not found to be defective, CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Times (or Milestones), or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement and reconstruction; and, if the parties are unable to agree as to the amount or extent thereof, CONTRACTOR may make a claim therefor as provided in Articles 11 and 12.

OWNER May Stop the Work:

13.10. 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 surety or other party.

Correction or Removal of Defective Work:

13.11. If required by ENGINEER, 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 ENGINEER, remove it from the site and replace it with Work that is not *defective*. CONTRACTOR shall pay all claims, costs, losses and damages caused by or resulting from such correction or removal (including but not limited to all costs of repair or replacement of work of others).

13.12. Correction Period:

13.12.1. If within one year after the date of Substantial 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: (i) correct such *defective Work*, or, if it has been rejected by OWNER, remove it from the site and replace it with Work that is not *defective*, and (ii) satisfactorily correct or remove and replace any damage to other Work or the work of others resulting therefrom. 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 claims, costs, losses and damages caused by or resulting from such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by CONTRACTOR.

13.12.2. In special circumstances where a particular item of equipment is placed in continuous service before Substantial 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 Written Amendment.

13.12.3. Where *defective Work* (and damage to other Work resulting therefrom) has been corrected, removed or replaced under this paragraph 13.12, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

Acceptance of Defective Work:

13.13. If, instead of requiring correction or removal and replacement of *defective Work*, OWNER (and, prior to ENGINEER's recommendation of final payment, also ENGINEER) prefers to accept it, OWNER may do so. CONTRACTOR shall

pay all claims, costs, losses and damages attributable to OWNER's evaluation of and determination to accept such *defective Work* (such costs to be approved by ENGINEER as to reasonableness). If any such acceptance occurs prior to ENGINEER's recommendation of final payment, 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, and, if the parties are unable to agree as to the amount thereof, OWNER may make a claim therefor as provided in Article 11. If the acceptance occurs after such recommendation, an appropriate amount will be paid by CONTRACTOR to OWNER.

OWNER May Correct Defective Work:

13.14. If CONTRACTOR fails within a reasonable time after written notice from ENGINEER to correct *defective Work* or to remove and replace rejected Work as required by ENGINEER in accordance with paragraph 13.11, 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. In connection with such 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, OWNER's other contractors and ENGINEER and ENGINEER's Consultants access to the site to enable OWNER to exercise the rights and remedies under this paragraph. All claims, costs, losses and damages incurred or sustained by OWNER in exercising such rights and remedies will be charged against CONTRACTOR 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, and, if the parties are unable to agree as to the amount thereof, OWNER may make a claim therefor as provided in Article 11. Such claims, costs, losses and damages will include but not be limited to all costs of repair or 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 Times (or Milestones) because of any delay in the performance of the Work attributable to the exercise by OWNER of OWNER's rights and remedies hereunder.

ARTICLE 14—PAYMENTS TO CONTRACTOR AND COMPLETION

Schedule of Values:

14.1. The schedule of values established as provided in paragraph 2.9 will serve as the basis for progress payments and

will be incorporated into a form of Application for Payment acceptable to ENGINEER. Progress payments on account of Unit Price Work will be based on the number of units completed.

Application for Progress Payment:

14.2. At least twenty days before the date established for each progress payment (but not more often than once a month), CONTRACTOR shall submit to ENGINEER 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 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. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

CONTRACTOR's Warranty of Title:

14.3. 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.

Review of Applications for Progress Payment:

14.4. ENGINEER will, within ten days 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 ENGINEER's reasons for refusing to recommend payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the Application. Ten days after presentation of the Application for Payment to OWNER with ENGINEER's recommendation, the amount recommended will (subject to the provisions of the last sentence of paragraph 14.7) become due and when due will be paid by OWNER to CONTRACTOR.

14.5. ENGINEER's recommendation of any payment requested in an Application for Payment will constitute a representation by ENGINEER to OWNER, based on ENGINEER's on-site observations of the executed Work as an experienced and qualified design professional and on ENGINEER's review of the Application for Payment and the accompanying data and schedules, that to the best of ENGINEER's knowledge, information and belief:

14.5.1. the Work has progressed to the point indicated,

14.5.2. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under paragraph 9.10, and to any other qualifications stated in the recommendation), and

14.5.3. the conditions precedent to CONTRACTOR's being entitled to such payment appear to have been fulfilled in so far as it is ENGINEER's responsibility to observe the Work.

However, by recommending any such payment ENGINEER will not thereby be deemed to have represented that: (i) exhaustive or continuous on-site inspections have been made to check the quality or the quantity of the Work beyond the responsibilities specifically assigned to ENGINEER in the Contract Documents or (ii) that there may not be other matters or issues between the parties that might entitle CONTRACTOR to be paid additionally by OWNER or entitle OWNER to withhold payment to CONTRACTOR.

14.6. ENGINEER's recommendation of any payment, including final payment, shall not mean that ENGINEER is responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the furnishing or performance of Work, or for any failure of CONTRACTOR to perform or furnish Work in accordance with the Contract Documents.

14.7. ENGINEER may refuse to recommend the whole or any part of any payment if, in ENGINEER's opinion, it would be incorrect to make the representations to OWNER referred to in paragraph 14.5. ENGINEER 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 ENGINEER's opinion to protect OWNER from loss because:

14.7.1. the Work is *defective*, or completed Work has been damaged requiring correction or replacement,

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

14.7.3. OWNER has been required to correct *defective* Work or complete Work in accordance with paragraph 13.14, or

14.7.4. ENGINEER has actual knowledge of the occurrence of any of the events enumerated in paragraphs 15.2.1 through 15.2.4 inclusive.

OWNER may refuse to make payment of the full amount recommended by ENGINEER because:

14.7.5. claims have been made against OWNER on account of CONTRACTOR's performance or furnishing of the Work,

14.7.6. Liens have been filed in connection with the Work, except where CONTRACTOR has delivered a specific Bond satisfactory to OWNER to secure the satisfaction and discharge of such Liens,

14.7.7. there are other items entitling OWNER to a set-off against the amount recommended, or

14.7.8. OWNER has actual knowledge of the occurrence of any of the events enumerated in paragraphs 14.7.1 through 14.7.3 or paragraphs 15.2.1 through 15.2.4 inclusive;

but OWNER must give CONTRACTOR immediate written notice (with a copy to ENGINEER) stating the reasons for such action and promptly pay CONTRACTOR the amount so withheld, or any adjustment thereto agreed to by OWNER and CONTRACTOR, when CONTRACTOR corrects to OWNER's satisfaction the reasons for such action.

Substantial Completion:

14.8. When CONTRACTOR considers the entire Work ready for its intended use CONTRACTOR shall notify OWNER and ENGINEER in writing that the entire Work is substantially complete (except for items specifically listed by CONTRACTOR as incomplete) and request that ENGINEER issue a certificate of Substantial Completion. Within a reasonable time thereafter, OWNER, CONTRACTOR and ENGINEER shall make an inspection of the Work to determine the status of completion. If ENGINEER does not consider the Work substantially complete, ENGINEER will notify CONTRACTOR in writing giving the reasons therefor. If ENGINEER considers the Work substantially complete, ENGINEER will prepare and deliver to OWNER a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. OWNER shall have seven days after receipt of the tentative certificate during which to make written objection to ENGINEER as to any provisions of the certificate or attached list. If, after considering such objections, ENGINEER concludes that the Work is not substantially complete, ENGINEER will within fourteen days after submission of the tentative certificate to OWNER notify CONTRACTOR in writing, stating the reasons therefor. If, after consideration of OWNER's objections, ENGINEER considers the Work substantially complete, ENGINEER will within said fourteen days execute and deliver to OWNER and CONTRACTOR a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as ENGINEER believes justified after consideration of any objections from OWNER. At the time of delivery of the tentative certificate of Substantial Completion ENGINEER will deliver to OWNER and CONTRACTOR a written recommendation as to division of responsibilities pending final payment between OWNER and CONTRACTOR with respect to security, operation, safety, maintenance, heat, utilities, insurance and warranties and guarantees. Unless OWNER and CONTRACTOR agree otherwise in writing and so inform

ENGINEER in writing prior to ENGINEER's issuing the definitive certificate of Substantial Completion, ENGINEER's aforesaid recommendation will be binding on OWNER and CONTRACTOR until final payment.

14.9. OWNER shall have the right to exclude CONTRACTOR from the Work after the date of Substantial Completion, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the tentative list.

Partial Utilization:

14.10. Use by OWNER at OWNER's option of any substantially completed part of the Work which: (i) has specifically been identified in the Contract Documents, or (ii) OWNER, ENGINEER and CONTRACTOR agree constitutes a separately functioning and usable part of the Work that can be used by OWNER for its intended purpose without significant interference with CONTRACTOR's performance of the remainder of the Work, may be accomplished prior to Substantial Completion of all the Work subject to the following:

14.10.1. 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 substantially complete. If CONTRACTOR agrees that such part of the Work is substantially complete, CONTRACTOR will certify to OWNER and ENGINEER that such part of the Work is substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. CONTRACTOR at any time may notify OWNER and ENGINEER in writing that CONTRACTOR considers any such part of the Work ready for its intended use and substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time after either such request, OWNER, CONTRACTOR and ENGINEER shall make an inspection of that part of the Work to determine its status of completion. If ENGINEER does not consider that part of the Work to be substantially complete, ENGINEER will notify OWNER and CONTRACTOR in writing giving the reasons therefor. If ENGINEER considers that part of the Work to be substantially complete, the provisions of paragraphs 14.8 and 14.9 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

14.10.2. No occupancy or separate operation of part of the Work will be accomplished prior to compliance with the requirements of paragraph 5.15 in respect of property insurance.

Final Inspection:

14.11. Upon written notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete, ENGINEER will make a final inspection with OWNER and 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 complete such Work or remedy such deficiencies.

Final Application for Payment:

14.12. After CONTRACTOR has completed all such corrections to the satisfaction of ENGINEER and delivered in accordance with the Contract Documents all maintenance and operating instructions, schedules, guarantees, Bonds, certificates or other evidence of insurance required by paragraph 5.4, certificates of inspection, marked-up record documents (as provided in paragraph 6.19) and other documents, CONTRACTOR may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied (except as previously delivered) by: (i) all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by subparagraph 5.4.13, (ii) consent of the surety, if any, to final payment, and (iii) 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 of such releases or waivers of Liens and as approved by OWNER, CONTRACTOR may furnish receipts or releases in full and an affidavit of CONTRACTOR that: (i) the releases and receipts include all labor, services, material and equipment for which a Lien could be filed, and (ii) 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. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, CONTRACTOR may furnish a Bond or other collateral satisfactory to OWNER to indemnify OWNER against any Lien.

Final Payment and Acceptance:

14.13. If, on the basis of ENGINEER's observation of the Work during construction and final inspection, and ENGINEER's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, ENGINEER is satisfied that the Work has been completed and CONTRACTOR's other obligations under the Contract Documents have been fulfilled, ENGINEER will, within ten days after receipt of the final Application for Payment, indicate in writing ENGINEER's recommendation of payment and present the Application to OWNER for payment. At the same time ENGINEER will also give written notice to OWNER and CONTRACTOR that the Work is acceptable subject to the provisions of paragraph 14.15. Otherwise, ENGINEER 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. Thirty days after the presentation to OWNER of the Application and accompanying documentation, in appropriate form and substance and with ENGINEER's recommendation and notice of acceptability, the amount recommended by ENGINEER will become due and will be paid by OWNER to

CONTRACTOR.

14.14. If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed and if ENGINEER so confirms, OWNER shall, upon receipt of CONTRACTOR's final Application for Payment and recommendation of ENGINEER, 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 5.1, 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 ENGINEER 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.

Waiver of Claims:

14.15. The making and acceptance of final payment will constitute:

14.15.1. a waiver of all claims by OWNER against CONTRACTOR, except claims arising from unsettled Liens, from *defective* Work appearing after final inspection pursuant to paragraph 14.11, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from CONTRACTOR's continuing obligations under the Contract Documents; and

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

ARTICLE 15—SUSPENSION OF WORK AND TERMINATION

OWNER May Suspend Work:

15.1. At any time and without cause, OWNER may suspend the Work or any portion thereof for a period of not more than ninety days by notice in writing to CONTRACTOR and ENGINEER 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 adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if CONTRACTOR makes an approved claim therefor as provided in Articles 11 and 12.

OWNER May Terminate:

15.2. Upon the occurrence of any one or more of the following events:

15.2.1. 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 2.9 as adjusted from time to time pursuant to paragraph 6.6);

15.2.2. if CONTRACTOR disregards Laws or Regulations of any public body having jurisdiction;

15.2.2. if CONTRACTOR disregards the authority of ENGINEER; or

15.2.4. if CONTRACTOR otherwise violates in any substantial way any provisions of the Contract Documents;

OWNER may, after giving CONTRACTOR (and the surety, if any,) 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 all claims, costs, losses and damages sustained by OWNER arising out of or resulting from completing the Work such excess will be paid to CONTRACTOR. If such claims, costs, losses and damages exceed such unpaid balance, CONTRACTOR shall pay the difference to OWNER. Such claims, costs, losses and damages incurred by OWNER will be reviewed by ENGINEER as to their reasonableness and when so approved by ENGINEER incorporated in a Change Order, provided that when exercising any rights or remedies under this paragraph OWNER shall not be required to obtain the lowest price for the Work performed.

15.3. 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.

15.4. Upon seven days' written notice to CONTRACTOR and ENGINEER, OWNER may, without cause and without prejudice to any other right or remedy of OWNER, elect to terminate the Agreement. In such case, CONTRACTOR shall be paid (without duplication of any items):

15.4.1. for completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

15.4.2. for expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;

15.4.3. for all claims, costs, losses and damages incurred in settlement of terminated contracts with Subcontractors, Suppliers and others; and

15.4.4. for reasonable expenses directly attributable to termination.

CONTRACTOR shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

CONTRACTOR May Stop Work or Terminate:

15.5. 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 ENGINEER fails to act on any Application for Payment within thirty days after it is submitted or OWNER fails for thirty days to pay CONTRACTOR any sum finally determined to be due, then CONTRACTOR may, upon seven days' written notice to OWNER and ENGINEER, and provided OWNER or ENGINEER do not remedy such suspension or failure within that time, terminate the Agreement and recover from OWNER payment on the same terms as provided in paragraph 15.4. In lieu of terminating the Agreement and without prejudice to any other right or remedy, if ENGINEER has failed to act on an Application for Payment within thirty days after it is submitted, or OWNER has failed for thirty days to pay CONTRACTOR any sum finally determined to be due, CONTRACTOR may upon seven day's written notice to OWNER and ENGINEER stop the Work until payment of all such amounts due CONTRACTOR, including interest thereon. The provisions of this paragraph 15.5 are not intended to preclude CONTRACTOR from making claim under Articles 11 and 12 for an increase in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to CONTRACTOR's stopping Work as permitted by this paragraph.

ARTICLE 16—DISPUTE RESOLUTION

If and to the extent that OWNER and CONTRACTOR have agreed on the method and procedure for resolving disputes between them that may arise under this Agreement, such dispute resolution method and procedure, if any, shall be as set forth in Exhibit GC-A, "Dispute Resolution Agreement," to be attached hereto and made a part hereof. If no such agreement on the method and procedure for resolving such disputes has been reached, and subject to the provisions of paragraphs 9.10, 9.11, and 9.12, OWNER and CONTRACTOR may exercise

such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any dispute.

ARTICLE 17—MISCELLANEOUS

Giving Notice:

17.1. 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.

Computation of Times:

17.2.1. 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.

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

Notice of Claim:

17.3. 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 17.3 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or repose.

Cumulative Remedies:

17.4. 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 6.12, 6.16, 6.30, 6.31, 6.32, 13.1, 13.12, 13.14, 14.3 and 15.2 and all of the rights and remedies available to OWNER and ENGINEER 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.

Professional Fees and Court Costs Included:

17.5. Whenever reference is made to "claims, costs, losses and damages," it shall include in each case, but not be limited to, all fees and charges of engineers, architects, attorneys and other professionals and all court or arbitration or other dispute resolution costs.

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**EXHIBIT GC-A to General Conditions of the
Agreement Between OWNER and CON-
TRACTOR Dated _____
For use with EJCDC No. 1910-8 (1990 ed.)**

DISPUTE RESOLUTION AGREEMENT

OWNER and CONTRACTOR hereby agree that Article 16 of the General Conditions to the Agreement between OWNER and CONTRACTOR is amended to include the following agreement of the parties:

16.1. All claims, disputes and other matters in question between OWNER and CONTRACTOR arising out of or relating to the Contract Documents or the breach thereof (except for claims which have been waived by the making or acceptance of final payment as provided by paragraph 14.15) will be decided by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association then obtaining, subject to the limitations of this Article 16. This agreement so to arbitrate and any other agreement or consent to arbitrate entered into in accordance herewith as provided in this Article 16 will be specifically enforceable under the prevailing law of any court having jurisdiction.

16.2. No demand for arbitration of any claim, dispute or other matter that is required to be referred to ENGINEER initially for decision in accordance with paragraph 9.11 will be made until the earlier of (a) the date on which ENGINEER has rendered a written decision or (b) the thirty-first day after the parties have presented their evidence to ENGINEER if a written decision has not been rendered by ENGINEER before that date. No demand for arbitration of any such claim, dispute or other matter will be made later than thirty days after the date on which ENGINEER has rendered a written decision in respect thereof in accordance with paragraph 9.11; and the failure to demand arbitration within said thirty days' period will result in ENGINEER's decision being final and binding upon OWNER and CONTRACTOR. If ENGINEER renders a decision after arbitration proceedings have been initiated, such decision may be entered as evidence but will not supersede the arbitration proceedings, except where the decision is acceptable to the parties concerned. No demand for arbitration of any written decision of ENGINEER rendered in accordance with paragraph 9.10 will be made later than ten days after the party making such demand has delivered written notice of intention to appeal as provided in paragraph 9.10.

16.3. Notice of the demand for arbitration will be filed in writing with the other party to the Agreement and with the

American Arbitration Association, and a copy will be sent to ENGINEER for information. The demand for arbitration will be made within the thirty-day or ten-day period specified in paragraph 16.2 as applicable, and in all other cases within a reasonable time after the claim, dispute or other matter in question has arisen, and in no event shall any such demand be made after the date when institution of legal or equitable proceedings based on such claim, dispute or other matter in question would be barred by the applicable statute of limitations.

16.4. Except as provided in paragraph 16.5 below, no arbitration arising out of or relating to the Contract Documents shall include by consolidation, joinder or in any other manner any other person or entity (including ENGINEER, ENGINEER's Consultant and the officers, directors, agents, employees or consultants of any of them) who is not a party to this contract unless:

16.4.1. the inclusion of such other person or entity is necessary if complete relief is to be afforded among those who are already parties to the arbitration, and

16.4.2. such other person or entity is substantially involved in a question of law or fact which is common to those who are already parties to the arbitration and which will arise in such proceedings, and

16.4.3. the written consent of the other person or entity sought to be included and of OWNER and CONTRACTOR has been obtained for such inclusion, which consent shall make specific reference to this paragraph; but no such consent shall constitute consent to arbitration of any dispute not specifically described in such consent or to arbitration with any party not specifically identified in such consent.

16.5. Notwithstanding paragraph 16.4 if a claim, dispute or other matter in question between OWNER and CONTRACTOR involves the Work of a Subcontractor, either OWNER or CONTRACTOR may join such Subcontractor as a party to the arbitration between OWNER and CONTRACTOR hereunder. CONTRACTOR shall include in all subcontracts required by paragraph 6.11 a specific provision whereby the Subcontractor consents to being joined in an arbitration between OWNER and CONTRACTOR involving the Work of such Subcontractor. Nothing in this paragraph 16.5 nor in the provision of such subcontract consenting to joinder shall create any claim, right or cause of action in favor of Subcontractor and against OWNER, ENGINEER or ENGINEER's Consultants that does not otherwise exist.

16.6. The award rendered by the arbitrators will be final, judgment may be entered upon it in any court having jurisdiction thereof, and it will not be subject to modification or appeal.

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16.7. OWNER and CONTRACTOR agree that they shall first submit any and all unsettled claims, counterclaims, disputes and other matters in question between them arising out of or relating to the Contract Documents or the breach thereof ("disputes"), to mediation by The American Arbitration Association under the Construction Industry Mediation Rules of the American Arbitration Association prior to either of them initiating against the other a demand for arbitration pursuant to paragraphs 16.1 through 16.6, unless delay in initiating arbitra-

tion would irrevocably prejudice one of the parties. The respective thirty and ten day time limits within which to file a demand for arbitration as provided in paragraphs 16.2 and 16.3 above shall be suspended with respect to a dispute submitted to mediation within those same applicable time limits and shall remain suspended until ten days after the termination of the mediation. The mediator of any dispute submitted to mediation under this Agreement shall not serve as arbitrator of such dispute unless otherwise agreed.

**CONSTRUCTION SUPPLEMENTARY CONDITIONS
FOR
CONTRACT NO. 024-02083-00 - NORTH END POWERLINE EXTENSION**

These Supplementary Conditions shall be construed as being supplements to the requirements of the General Conditions, ENGINEER's Joint Contract Document No. 1910-8 (1990 Edition), as bound herein. In the event of any conflict of meaning between the Supplementary Conditions and said General Conditions provisions of the Supplementary Conditions shall control.

The following changes are made to the referenced articles and paragraphs of the General Conditions.

1. Delete present paragraph 2.2 and replace with the following:

At CONTRACTOR's request, the ENGINEER will provide contract drawings and specifications in electronic format. The drawings will be provided in AutoCad format. CONTRACTOR will also be responsible for additional terms and conditions applicable to the transfer of material by electronic means.

2. Delete Article 2.8.
3. With respect to Article 2.9, delete the first sentence of this article.

The 2nd sentence is deleted and replaced with the following:

After ENGINEER's review of the schedules to be submitted in accordance with paragraph 2.6, CONTRACTOR shall have an additional ten (10) days to make corrections and adjustments and to complete and resubmit the schedules.

4. Delete present paragraph 4.2.1 and insert in place thereof:

Reports and Drawings: Reference is made to the Specification for identification of:

5. Delete present second sentence in paragraph 4.2.2 and insert in place thereof:

Such "technical data" is identified in the Specifications.

6. The following paragraph is added to 5.4.8 as follows:

Insurance Coverages. All insurance to be provided by the CONTRACTOR pursuant to the Standard General Conditions of the Construction Contract shall be obtained from an insurer authorized to do business in Ohio in the form required by the OWNER and ENGINEER in an amount not less than the following coverage:

<u>Kind of Insurance</u>	<u>Limits of Liability</u>	
<u>Worker's Compensation</u>	Statutory Limits for Ohio	
<u>Employer's Liability</u>	Each Accident	\$500,000
	Disease-Policy Limit	\$500,000
	Disease-Each Employee	\$500,000
<u>General Liability</u>	General Aggregate	\$2,000,000
To Include:	Products-Comp/Op Agg.	\$2,000,000
	Personal & Adv. Injury	\$2,000,000
A. Comprehensive Form	Each Occurrence	\$2,000,000
B. Occurrence Form		
C. Premises/Operations		
D. Underground, Explosion, & Collapse Hazard		
E. Products/Completed Operations		
F. Contractual		
G. Independent CONTRACTORs		
H. Broad Form Property Damage		
I. Personal Injury		
<u>Automobile Liability</u>	Combined Single Limit	\$1,000,000
To Include:		
A. Any Auto		
B. Hired Autos		
C. Non-Owned Autos		
<u>Excess Liability</u>	Each Occurrence	\$5,000,000
Umbrella Form	Aggregate	\$5,000,000

CONTRACTOR's insurance to be placed with insurers that carry an A.M. Best Company rating of not less than A- (Excellent).

The following shall be named as Additional Insured under the General Liability, Automobile Liability and Excess Liability:

- A. OWNER and ENGINEER to be named Additional Insured under the General Liability, Automobile Liability and Excess Liability.

Evidence of above insurance to be furnished to the OWNER and ENGINEER on a standard Certificate of Insurance, with 30 days written notice of cancellation. If the Acord Certificate of Insurance is used, the following words should be deleted from the cancellation provisions: "endeavor to" and "but failure to mail such notices shall impose no obligation or liability of any kind upon the company, its agents or representatives".

7. Delete item 5.6, 5.7, 5.8, 5.9, and 5.10 and replace with the following:
 - 5.6 The Contractor shall provide and maintain, during the progress of the Work, a Builder's Risk Insurance policy to cover all Work in the course of construction including falsework, temporary buildings and structures and materials used in the construction process, stored on or off site, or while in transit. Such insurance shall be on a "Risk of Direct Physical Loss" form policy and shall insure against the perils of fire and extended coverage and physical loss or damage including, without limitation, theft, vandalism, malicious mischief, earthquake, tornado, lightning, explosion, breakage of glass, flood, collapse and water damage. It shall also include debris removal, demolition occasioned by enforcement of any applicable legal requirement, and shall cover reasonable compensation for the Owner's services and expenses required to limit further loss.
 - 5.6.1 Coverage must include provision to pay the reasonable extra costs of expediting temporary and/or permanent repairs to, or permanent replacement of, damaged property. This shall include overtime wages and the extra cost of "express" or other means for rapidly transporting materials and supplies necessary to such repair or replacement.
 - 5.6.2 Such Builder's Risk policy shall protect both the Contractor and the Owner from loss and provide coverage for materials in transit or stored off site and identified for the project.
 - 5.7 Unless otherwise specified in the Contract Documents, the Builder's Risk policy shall be written in the amount equal to 100 percent of the Contract price.
 - 5.8 The Builder's Risk policy shall specifically permit and allow for use of equipment and/or partial occupancy by the Owner prior to acceptance of the Project by the Owner.

8. Paragraph 6.3.1 is added as follows:

HIRING OF LABOR, NON-DISCRIMINATION

The CONTRACTOR shall comply with all governmental requirements relating to equal employment opportunities in the hiring of labor.

9. With respect to Article 7.4, add "or Technical Specification" to the end of the first sentence.
10. With respect to Article 8.11, the following is added to the end of the last sentence of the article, "or elsewhere in the Contract Documents."
11. Delete the present paragraph 9.2 and insert in place thereof the following:

ENGINEER will make visits to the site at intervals appropriate to the various stages of construction as ENGINEER deems necessary in order to observe as an experienced and qualified design professional the general progress that has been made with respect to the various aspects of the CONTRACTOR'S executed Work. Based upon information obtained during such visits and observations, ENGINEER

will endeavor for the benefit of OWNER to determine, in general, if the Work is proceeding in accordance with the Contract Documents. ENGINEER will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. ENGINEER'S visits and on-site observations are subject to all the limitations on ENGINEER'S authority and responsibility set forth in paragraph 9.13, and, in particular, but without limitation, during or as a result of ENGINEER'S on-site visits or observations of CONTRACTOR'S Work, ENGINEER will not supervise, direct, control or have authority over or be responsible for CONTRACTOR'S means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with the Laws and Regulations applicable to the furnishing or performance of the Work.

12. Delete present paragraph 9.12 and insert in place thereof the following:

When functioning as interpreter and judge under paragraphs 9.10 and 9.11, ENGINEER will not be liable in connection with any interpretation or decision rendered in good faith in such capacity. The rendering of a decision by ENGINEER pursuant to paragraphs 9.10 or 9.11 with respect to any such claim, dispute or other matter (except any which have been waived by the making or acceptance of final payment as provided in paragraph 14.16) will be a condition precedent to any exercise by OWNER or CONTRACTOR of such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any such claim, dispute or other matter pursuant to Article 16.

13. With respect to paragraph 11.2, delete "thirty" in the fifth line of said paragraph and insert "ten". Further, in the ninth line of said paragraph, delete "sixty" and insert in place thereof "ten".

14. With respect to paragraph 12.1, delete "thirty" in the sixth line of said paragraph and insert "ten". Further, in the ninth line of said paragraph, delete "sixty" and insert in place thereof "ten".

15. With respect to paragraph 13.12.1, in the first line delete "Substantial Completion" and insert "Written Acceptance by OWNER".....

16. Delete the last sentence in paragraph 14.2 and insert in place thereof the following:

The amount of retainage on the value of the completed Work shall be maintained in accordance with the Escrow Agreement.

17. Delete Article 14.8.

18. Delete Article 14.10.1.

19. In Articles 14.11, 14.13, and 14.15.1, the term "inspection" is replaced by "observation". Observation of the Work will be for conformance to plans and specifications.

20. The first sentence of Article 14.2 is revised to read as follows:

“After the air pollution control system has been successfully started up and commissioned and after the CONTRACTOR has completed all such corrections to the satisfaction of ENGINEER and delivered in accordance with the Contract Documents all maintenance and operating instructions, schedules, guarantees, Bonds, certificates or other evidence of insurance required by paragraph 5.4, certificates of inspection, marked-up record documents (as provided in paragraph 6.19) and other documents, CONTRACTOR may make application for final payment following the procedure for progress payments.”

21. The following paragraph has been added to Article 16 - DISPUTE RESOLUTION:

OWNER and CONTRACTOR agree that they shall first submit any and all unsettled claims, counterclaims, disputes and other matters in question between them arising out of or relating to the Contract Documents or the breach thereof ("disputes"), to mediation by The American Arbitration Association under the Construction Industry Mediation Rules of the American Arbitration Association prior to either of them initiating against the other a demand for arbitration unless delay in initiating arbitration would irrevocably prejudice one of the parties.

22. RATES OF WAGES

CONTRACTORS and subcontractors for any part of the Work shall comply with the applicable States Prevailing Wage requirements and shall pay not less than the Prevailing Rates of Wages for the locality, which rates have been ascertained and determined and set forth in a Schedule of Wages.

The above mentioned Schedule of Wages is made a part of this specification and is incorporated into and made a part of the Bidding Documents.

DIVISION 1 - GENERAL REQUIREMENTS

SECTION 011000 - SUMMARY OF WORK

PART 1 - GENERAL

1.1 SCOPE

A. Without limiting the commercial requirements of the Contract Documents, this Work shall conform to the requirements specified herein.

B. Description of Project

1. The City of Dover, Ohio is adding a dedicated 15 kV distribution feeder circuit to the North intertie substation. This Contractor shall furnish of all labor, specified materials, apparatus, expendable tools and equipment, and all other services required for the construction of one (1) 15 kV pole line associated with improvements to the Municipal Electric System of the City of Dover, Ohio. The base bid consists of the construction/rebuild of approximately 1.7 miles of pole line along with the relocation of existing secondary circuits. The new 15 kV dedicated pole line distribution circuit route will be from the North Intertie Substation to the new plant site located south of Crown Road Northwest and west of North Wooster Avenue. This Contractor shall furnish of all labor, specified materials, apparatus, expendable tools and equipment, and all other services required for the construction of one (1) 15 kV pole line associated with the improvements. A portion of the dedicated distribution circuit shall be an overbuild modification of a pole line that contains either one or two existing distribution circuit lines. Existing distribution conductors and secondary circuits will be relocated to the new poles. The existing poles will have all the circuit hardware removed. The existing poles will be topped immediately above the existing communication/fiber circuits as part of the scope of work. Replacement and new pole line sections are shown in detail on the associated drawings which describes the scope of work for the improvements to the Municipal Electric System of the City of Dover, Ohio. The Scope of Work under this contract will consist of both new pole installation, pole modifications and pole replacement. The description below is a high level summary of the work scope. The construction details are shown on the drawing package provided.

- All work will be done with the existing two circuits staying energized.
- Existing poles sections will be topped once the existing distribution and secondary circuits are relocated to new poles as part of the scope of work to allow for the additional dedicated circuit. The existing topped poles will remain in place to allow the attached communication, phone and fiber conductors owned by others to remain in place. Details of new poles, and modified poles are detailed within the provided drawing package which shows the scope of work.
- Starting at the North Intertie Substation, the spare 15 kV switchgear unit 7 feeder breaker will be utilized as the source. This contractor will install an underground three phase 750 MCM 133% EPR with a ground in a 6 inch conduit to a riser pole. There is an existing conduit stubbed out of the switchgear unit 7 which will be utilized for extension to the new riser pole.

The 69 kV line associated with breakers P and R will be reconfigured immediately outside at the first two transmission poles to allow for a section of the 69 kV line to be repurposed for use by the 15 kV North End circuit. This repurposed portion of the 69kV line will be used "as installed" for this dedicated 15 kV distribution circuit to a location just south of Guy Smith Way.

- This dedicated distribution circuit will then transition prior to Guy Smith Way to a new single circuit dedicated pole line before combining with the existing double circuit pole line on the north side of Guy Smith Way. New poles will be installed along this section of the route and become a triple circuit pole line to Highway 80 (Ohio Avenue/Schneiders Crossing Rd NW). The existing poles will be topped and remain in place.
- The new triple circuit with the dedicated pole line will cross Highway 80 (Ohio Avenue/Schneiders Crossing Rd NW) and then transition to a double pole line circuit and continue north to Deeds Drive by rebuilding the existing single circuit distribution circuit into a double circuit with the dedicated circuit on the top and the existing circuit on the bottom. The existing third circuit shall remain to be configured to turn east and connect to the existing pole line distribution circuit.
- This new dedicated circuit will continue north past Deeds Drive and transition into a single dedicated distribution circuit pole line which will be constructed along the railroad track to Crown Road Northwest. The dedicated pole line will then turn east on the newly widen Crown Road Northwest to the primary metering location at the property edge of the plant site.

C. Location of Project

1. The project begins at the North Intertie Substation on Progress Street and ends at the new plant metering site located on the south side of Crown Road Northwest and west of North Wooster Avenue. The new North End 15 kV dedicated distribution circuit route is shown in detail on the provided drawing package.
2. A section of North End Feeder circuit will utilize a section of unused 69 kV transmission line before transitioning to a single circuit and then to an over build triple circuit from Guy Smith Way to Highway 80 (Ohio Avenue/Schneiders Crossing Rd NW). The new North End single circuit dedicated pole line will combine with the existing Tremont and Northwest double circuit pole line to form the triple circuit.
3. The new dedicated North End circuit and the Northwest circuit will continue as a double pole line circuit after crossing Highway 80 (Ohio Avenue/Schneiders Crossing Rd NW) and then continue north to Deeds Drive by rebuilding the existing single circuit distribution circuit into a double circuit with the dedicated North End circuit on the top. All existing poles will
4. This dedicated North End circuit will continue north past Deeds Drive and transition into a single dedicated distribution circuit pole line which will be constructed along the railroad track to Crown Road Northwest. The pole line will then turn east on the newly widen Crown Road Northwest to the primary metering location at the property edge of the plant site.

5. This construction contractor will reconfigure the first two transmission poles immediately outside the substation. This will allow for a section of the 69 kV line to be repurposed for use by the new 15 kV North End distribution circuit.
6. This construction contractor shall locate existing underground conduits stub outs and install the two underground conduits from the existing North Intertie Substation 15 kV switchgear spare breaker to the newly installed riser pole. This contractor will install the 15 kV power conductors in these conduits. The 15 kV power conductors going up the riser pole will connect to the repurposed section of the 69 kV transmission line.

D. Work Covered by this Specification

These specifications cover the furnishing of all labor, specified materials, apparatus, expendable tools and equipment, and all other services required for the construction of one (1) 15 kV pole line associated with improvements to the Municipal Electric System of the City of Dover, Ohio. The base bid consists of the construction/rebuild of approximately 1.7 miles of pole line along with the relocation of existing secondary circuits. The new 15 kV dedicated pole line distribution circuit route will be from the North Intertie Substation to the new plant site located south of Crown Road Northwest and west of North Wooster Avenue. A portion of the dedicated distribution circuit will be an overbuild modification of a pole line that contains one or two existing distribution circuit lines. Existing distribution conductors and secondary circuits will be relocated to the new poles. The existing poles will have all the circuit hardware removed and returned to Dover. The existing poles will be topped immediately above the existing communication/fiber circuits as part of the scope of work. Replacement and new pole line sections are shown in detail on the associated drawings which describes the scope of work for the improvements to the Municipal Electric System of the City of Dover, Ohio.

1. The existing overhead 15 kV primary circuit and secondary circuits shall remain in service during the construction of the new overhead circuit. This contractor will provide proper temporary equipment for this type of construction.
2. The Contract includes but is not limited to the following items of work and materials which are listed for Contractor's convenience in understanding the Scope of Work. A detailed Bill of Material is included on the drawings.
 - a. Furnishing of the following materials as detailed on the drawings:
 1. Specified 15 kV circuit materials as detailed on the drawings.
 2. Specified secondary circuit materials as detailed on the drawings.
 3. Specified 15 kV, 600Amp, single pole phase switches.
 4. Specified phase and ground conductors.
 5. Specified 69 kV insulators and associated mounting hardware.
 6. Pole mounted fuses, fuse disconnects, surge arresters, capacitor banks, pin insulators, strain insulators and associated mounting and grounding hardware.
 - b. Installation of the Contractor and Owner furnished materials for the following:

1. 15 kV circuit poles, conductors and required hardware.
 2. Secondary circuits extensions and transfers including all required hardware.
 3. Transfer of the existing miscellaneous communication equipment as noted on the drawings.
 4. Transfers of 15 kV circuit equipment and secondary circuit equipment.
 5. Transfers of existing Street Lighting.
- c. Furnish all required tree and stump removal and tree trimming services along the North End Feeder circuit route.
 - d. Removal of existing pole equipment, topping of poles, conductors, transformers and hardware as noted on the drawing.
 - e. Furnish required flagmen and traffic control signage for work in the Street right-of-way.
- E. Owner Furnished Materials and Services
1. The Owner will furnish the following construction materials:
 - a. Existing installed streetlights to be transferred to new poles by this Contractor.
 - b. Existing miscellaneous equipment to be transferred to new poles by this Contractor.
 - c. Required wood poles - NONE. This contractor shall supply all poles shown for route.
 - d. Required pole mounted transformers and hardware - NONE. This contractor shall supply all transformers, capacitor bank, auxiliary equipment and hardware.
 2. The transferring of traffic light control equipment only (if required) will be performed by others.
 3. The transfer of foreign secondary utilities will be performed by other contractors when required. The intent is to top the existing poles and allow the secondary attachments to remain. The Owner will coordinate any of these transfers that is required.
 4. The Owner will furnish operating personnel for operation of all circuits during preliminary placement of circuits into operation.
 5. The Owner will energize the equipment being installed under this Contract upon certification of the Contractor or his responsible representative that all Work is satisfactorily completed and that he is aware that the equipment is being energized at the time.
 6. The Owner will furnish all required rights-of-way, tree trimming rights, permits, and construction access, as required.

F. BUY LOCAL - CITY OF DOVER RESOLUTION 12-09:

1. In determining the lowest and best responsible bid, a local bidder whose business is located in the City of Dover may receive a credit equal to 3.5% of the lowest bid submitted by a non-local (non-Tuscarawas County) bidder. In determining the lowest and best responsible bid, a local bidder whose business is located in Tuscarawas County may receive a credit equal to 1.5% of the lowest bid submitted by a non-Tuscarawas County bidder. Said credit shall not exceed \$10,000.00. The Board of Control may award the bid on a contract of a Dover business that exceeds the bid of a non-Tuscarawas County bidder by 3.5% and the bid of a Tuscarawas County bidder that exceeds the bid of a non-Tuscarawas County bidder by 1.5%, respectively, up to an amount not to exceed Ten Thousand Dollars (\$10,000.00).

PART 2 - PRODUCTS

Not applicable

PART 3 - EXECUTION

3.1 SCHEDULE

- A. The Contract work shall start no earlier than May 15, 2025, and must be completed no later than September 30, 2025. An Alternate construction schedule may be proposed by the Contractor as an alternate within the bidding form but work must be completed by the September date. An exception may be considered if material delivery dates preclude the completion date.

3.2 SEQUENCE OF WORK

- A. The Contractor shall coordinate his sequence of work with the Municipal Electric System of the City of Dover, Ohio.
- B. The Contractor shall coordinate his sequence of work with the availability of circuit outages.

3.3 OVERTIME

- A. It is the intent that the majority of the Work specified be performed during normal working hours with sufficient manpower to complete the project on schedule. Overtime shall be performed by the Contractor at his expense to expedite the Contractor's Work whenever the Contractor delays the Project Schedule.
- B. If the Owner or Engineer requests additional overtime, the Contractor will be reimbursed for his additional cost only.

END OF SECTION 011000

SECTION 011015 - CONTRACT DOCUMENTATION

PART 1 - GENERAL

1.1 ENGINEER'S DOCUMENTATION

- A. The Engineer has prepared the following documents to supplement the requirements of the specification.

<u>Document</u>	<u>Location</u>
Drawings per Drawing List	Appendix No. 1

- B. It is the intent that all documents supplement each other and that each are complete. An omission of any Work from one (1) document that is shown or specified elsewhere shall not relieve or excuse this Contractor from furnishing and installing any Work required for a complete installation. If discrepancies are discovered, the more stringent shall apply. Discrepancies should be forwarded to the Engineer for clarification.

PART 2 - PRODUCTS

Not applicable

PART 3 - EXECUTION

Not applicable.

END OF SECTION 011015

SECTION 013100 - COORDINATION

PART 1 - GENERAL

1.1 COORDINATION

A. Construction Coordination Operations

1. Coordinate construction operations included in various Sections of these Specifications to assure efficient and orderly installation of each part of the Work. Coordinate construction operations included under different Sections that depend on each other for proper installation, connection, and operation.
 - a. Schedule construction operations in the sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 - b. Coordinate installation of different components to assure maximum accessibility for required maintenance, services, and repair.
 - c. Make provisions to accommodate items scheduled for later installation.
2. Where necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and attendance at meetings.
 - a. Prepare similar memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and attendance at meetings.

B. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and assure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:

1. Preparation of schedules
2. Installation and removal of temporary facilities
3. Delivery and processing of submittals
4. Progress meetings
5. Project closeout activities

C. Staff Names: Within 15 days of commencement of construction operations, submit a list of the Contractor's principal staff assignments, including the superintendent and other personnel in attendance at the Project Site. Identify individuals and their duties and responsibilities. List their addresses and telephone numbers.

1. Post copies of the list in the Project meeting room, the temporary field office, and at each temporary telephone.

PART 2 – PRODUCTS

Not applicable

PART 3 - EXECUTION

3.1 NOTIFICATIONS

- A. The Contractor shall be responsible to contact all utilities whose installations may be encountered during the excavation and construction and to locate such utilities whether or not they are identified in the specification or on the drawings. The Contractor shall be responsible for damages and required repairs to all utilities as a result of his Work.
- B. Notify the following Agencies and/or utilities in advance of excavation or construction in areas in which other utilities and facilities may be encountered.
 - 1. Ohio Utility Safety Notification System Ohio 811
 - 2. Gas Utilities
 - 3. Telephone Utilities
 - 4. Electric Utilities
 - 5. Cable Television Companies
 - 6. Fiber Optic Companies
 - 7. Street Department
 - 8. City Engineering for Sewer and Water Pipelines
 - 9. Industries with Underground Pipe Lines
 - 10. Ohio Department of Transportation (ODOT)
 - a. All work performed on this project is on City right of way. The City does not require right of way work permits.
 - b. ODOT has no right of way in this project area.

3.2 PROTECTION

- A. Contractor's Furnished Material and Equipment
 - 1. Equipment shall be boxed, crated or otherwise suitably protected during shipment, handling, and storage in accordance with manufacturer's recommendations.
 - 2. Finished surfaces shall be protected against impact, abrasion, discoloration, and other damage. Surfaces which are damaged shall be repaired.
 - 3. All equipment and materials shall be protected against moisture and water damage.
 - 4. Machine surfaces, bearings, unfinished surfaces and like items shall be thoroughly cleaned and coated with rust preventative compound and fully protected with wood, metal, or other substantial covering.
- B. Owner's Material and Equipment

1. Furnish all the means and conveyance necessary for the loading, transferring, and unloading of materials and equipment furnished by the Owner.
2. Be responsible for all materials and equipment after it is received by the Contractor until the Work is accepted by the Owner.
3. Furnish all the means and conveyance necessary for the removal, loading, transferring, and unloading of existing materials and equipment to be removed by this Contractor.
4. Be responsible for all materials and equipment after it is removed by the Contractor until received by the Owner.
5. All material shall be carefully handled to prevent injury or damage to the finish and to prevent bending or breakage of the materials.
6. The protection of stored materials shall be the responsibility of the Contractor.
7. All materials stored outdoors shall be properly protected from the elements.

C. Owner's Facilities

1. During the construction of the Work, the Contractor shall be responsible for the proper protection of the Owner's facilities and equipment, and for damage which is caused by this Contractor or his subcontractors.
2. The City of Dover Electric System will be in continuous operation during the period of construction of the Work covered by these specifications. Perform the Work covered by these specifications at such times, in such manner, and with such force, in full cooperation with the employees of the City of Dover as to expedite the Work and minimize interruption or restriction of services to the City of Dover and its customers. Unavoidable interruptions for the connection of the new Work to existing shall be scheduled in advance and all Work shall be arranged to minimize the duration of such interruptions. City of Dover employees will be responsible for contacting customers concerning outages required for new construction and tie-ins.
3. Take care when hauling materials to locations to choose routes across private property which shall result in a minimum of damage and inconvenience to the property owner. Replace all fences removed for access.
4. No materials are to be left in the field that obstruct or inconvenience private property owners unless written permission is obtained from those owners.
5. The Owner will furnish all construction access reasonably required by the Contractor.
6. After construction is completed, the Contractor shall be responsible for restoring any temporary roads and trails he used during construction to the satisfaction of the Owner.

3.3 CIRCUIT LAYOUT AND FIELD MEASUREMENTS

- A. Take all measurements. Lay out all Work. Stake the locations of new poles and anchors. Field verify and be responsible for all dimensions. Once layout is complete confirm the acceptability with the Owner.
- B. Dimensions shown on the drawings locating existing work are for guidance only and are to be checked in the field and verified before fabrication of material for construction.
- C. Minor deviations from dimensions or arrangements shown shall be accounted for as part of this Work.
- D. Exercise special care in checking existing construction to ensure proper connection to the existing work and equipment and to avoid interferences.
- E. All tree trimming and stump removal along the four Feeder routes is the responsibility of this Contractor. This Contractor shall determine his requirements based on the pre-bid field walkdown and agreement by the Owner and Engineer.
- F. Any interferences disclosed by field measurements and detailing shall be reported to the Engineer for correction before fabrication of the Work. All extra costs incurred to correct any interferences appearing after the fabrication of the Work shall be borne by this Contractor.
- G. Notify Engineer after pole and anchor locations are staked and before poles are set to permit the Engineer to observe the locations of the stakes.

END OF SECTION 013100

SECTION 014100 - SAFETY REGULATIONS AND RESTRICTIONS

PART 1 - GENERAL

1.1 SAFETY REGULATIONS

- A. During the progress of the Work, this Contractor shall be responsible for the protection of his personnel and all other persons from injuries which may result from Work under this Contract.
- B. All Work performed for this Contract shall conform to the Owner's requirements and federal, state or local safety requirements whichever are more stringent. Temporary safety construction requirements shall be maintained until no longer required and then removed by this Contractor.
- C. Whenever the Work of this Contract requires the use of oxyacetylene and/or electric equipment for welding or cutting, the Contractor shall exercise precautions in accordance with NFPA Standard 51B, "Standard for Fire Protection in Use of Cutting and Welding Processes."

1.2 NOISE RESTRICTIONS

A. During Construction

- 1. Contractor shall comply with OSHA requirements and all other applicable laws, rules and regulations, pertaining to the control of noise.

PART 2 - PRODUCTS

Not applicable

PART 3 - EXECUTION

Not applicable

END OF SECTION 014100

SECTION 014200 - REFERENCE STANDARDS

PART 1 - GENERAL

1.1 LIST OF REFERENCE STANDARDS

- A. All Work shall conform to the requirements of the latest applicable issue and addenda (in effect on the bid date) of the codes and standards issued by the organization or agencies as listed in the Schedule of References.
- B. The applicable standards shall be considered minimum requirements. In the event of conflict between the standards and the detailed requirements of these specifications, the more stringent shall govern.
- C. Schedule of References

ACI	American Concrete Institute
ANSI	American National Standards Institute
ASTM	American Society for Testing and Materials
CFR	Code of Federal Regulation
EPA	Environmental Protection Agency
ICEA	Insulated Cable Engineers Association
IEEE	Institute of Electrical and Electronics Engineers
NEC	National Electrical Code
NEMA	National Electrical Manufacturers Association
NESC	National Electrical Safety Code
NFPA	National Fire Protection Association
OSHA	Occupational Safety and Health Administration
	Federal Codes
	State of Ohio Codes
	City of Dover Codes

PART 2 - PRODUCT

Not applicable

PART 3 - EXECUTION

Not applicable

END OF SECTION 014200

SECTION 014201 - PROJECT MEETINGS

PART 1 - GENERAL

1.1 SCOPE

- A. Meetings will be held during the progress of the construction under this Contract. The Contractor shall attend and provide the required discussion at the meetings. Engineer will administer the meetings.

1. Pre-Construction Meeting

- a. Prior to beginning construction, a meeting will be scheduled at the job site to review responsibilities and personnel assignments. Circuit layout and job sequencing shall be discussed and agreed upon in this meeting. The Owner, Engineer, Contractor, its superintendent, and major subcontractors shall attend the meeting.

2. Progress Meetings

- a. Progress meetings will be held at the job site as requested by the Engineer or Owner. The meeting shall be attended by the Owner, Engineer, Contractor, its superintendent, subcontractors or other entity concerned with current progress or included in planning, coordination or performance of future activities.

3. Coordination Meetings

- a. Coordination meetings will be held as may be required to coordinate specific aspects of the project work.

PART 2 - PRODUCTS

Not applicable

PART 3 - EXECUTION

Not applicable

END OF SECTION 014201

SECTION 013219 - SUBMITTALS

PART 1 - GENERAL

1.1 SCOPE

A. Drawings for Review and Approval

1. Provide one (1) print of all drawings submitted.
2. Before submittal all documents shall be **stamped**, reviewed and approved by the Contractor and shall indicate on the documents that the equipment and material conforms to the Contract Documents. The Contractor shall stamp each document and sign and date to indicate approval. The stamp shall include the following:

Contractor's Name: _____
Contract No.: _____
Date: _____
Approved By: _____

3. These drawings shall be subject to review and approval by the Engineer prior to manufacture and assembly of the equipment. No material shall be released for shipment to the job site until these drawings have been reviewed and approved by the Engineer.
4. Review and approval of these drawings by the Engineer will be for arrangement and compliance with the Contract. Details of design, furnishing necessary equipment, materials and accessories, detail dimensions and clearances, performance of individual items of equipment and performance as a whole are the responsibility of the Contractor. The omission of any required equipment from the drawings shall not release the Contractor from the responsibility of providing a complete system. Drawing review and approval shall not release the Contractor from these responsibilities.
5. Drawings shall be submitted electronically via email to **Submittals@ssoe.com**
6. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form.
 - a. Project Name
 - b. Date
 - c. Destination (To:)
 - d. Source (From:)
 - e. Names of subcontractor, manufacturer, and supplier
 - f. Category and type of submittal
 - g. Submittal purpose and description
 - h. Specification Section number and title
 - i. Drawing number and detail references, as appropriate
 - j. Transmittal number

- k. Submittal and transmittal distribution record
 - l. Remarks
 - m. Signature of transmitter
7. All submittals including: design review submittals, shop drawings, commissioning submittals, final submittals, and product data will be affixed with review stamp, dated and initialed by checker, and marked within following format:

Engineer Review portion of the review stamp shall be interpreted as follows:

Comment	Meaning
No exceptions taken	Acceptance for construction or acceptance to proceed with design.
Note markings	Incorporate corrections
Comments attached	Incorporate comments
Rejected	Not acceptable

Response required of Contractor portion of the review stamp shall be interpreted as follows:

Comment	Meaning
Process	Proceed with construction, incorporate corrections and comments.
Resubmit	Revise in accordance with corrections or comments and resubmit.

8. Resubmittals: Make resubmittals in same form as initial submittal.
- a. Note date and content of previous submittal.
 - b. Note date and content of revision in label or title block and clearly indicate extent of revision.
9. These drawings shall be subject to review by the Engineer prior to manufacture and assembly of the equipment. No material shall be released for shipment to the job site until these drawings have been reviewed by the Engineer.
10. Review of these drawings by the Engineer will be for arrangement and compliance with the Contract. Details of design, furnishing necessary equipment, materials and accessories, detail dimensions and clearances, performance of individual items of equipment and performance as a whole are the responsibility of the Contractor. The omission of any required equipment from the drawings shall not release the Contractor from the responsibility of providing a complete and fully operational

system. Drawing review shall not release the Contractor from these responsibilities.

11. A minimum of ten (10) Working days will be required for drawing review unless otherwise mutually agreed upon.
12. The Engineer will return to the Contractor one (1) digital PDF copy of the drawings which have been reviewed and/or marked with comments and required changes.
13. After shop fabrication and required shop testing has been completed, the Contractor shall revise the drawings incorporating all modifications and/or corrections made during fabrication and testing and furnish, by means of email, electronic PDF files of each drawing and of each document to the Owner and to the Engineer
14. The specified item submitted for review on catalog cuts shall be marked by arrow or other means that will transfer during copying. Highlighting by color marker is not acceptable.
15. Tag numbers supplied by the Engineer for all items shall be included on shop drawings and on the equipment. All additional descriptive information required by the Engineer shall be put on the drawings.

B. Final Contractor's Documentation and Engineering Data

1. Upon completion of the Work and acceptance by the Owner and Engineer, revise all drawings as necessary showing all field changes.
2. Provide the following information and data:
 - a. Two (2) copies of record prints of all drawings issued under this Contract.

PART 2 - PRODUCTS

Not applicable

PART 3 - EXECUTION

Not applicable

END OF SECTION 013219

SECTION 013311 - SCHEDULES AND REPORTS

PART 1 - GENERAL

1.1 SCOPE

A. Progress Schedule

1. Submit within thirty (30) days of Contract award a detailed schedule. The Progress Schedule shall be updated monthly or more often as requested by the Engineer to reflect necessary changes.
2. The Progress Schedule shall be detailed showing Work tasks, milestones, durations, delivery dates and completion dates.
3. Maintain at the job site a separate set of Engineer's drawings which shall be marked daily to show completed Contract Work. The drawings shall be used to monitor Contractor progress.

B. Reports

1. Sagging Report
 - a. Provide to Engineer one (1) copy of the conductor sagging reports.
2. Ground Resistance Report
 - a. Provide to the Engineer one (1) copy of the structure ground resistance report which indicates resistance measurements of each structure ground and length of ground rod installed at each structure.

PART 2 - PRODUCTS

Not applicable

PART 3 - EXECUTION

Not applicable

END OF SECTION 013311

SECTION 015000 - TEMPORARY FACILITIES

PART 1 - GENERAL

1.1 OWNER FURNISHED FACILITIES AND SERVICES

- A. Operating personnel for operation of all equipment during preliminary placement of systems into operation.
- B. Contractor to provide and install temporary service pole, meter socket, and circuit overcurrent protection. Electrical energy at 120/240 volts, single phase, 60 Hz maximum 100 ampere service, at one (1) location only with charge to the Contractor.

1.2 CONTRACTOR FURNISHED FACILITIES AND SERVICES

- A. Furnish all facilities including services required but not limited to the following:
 - 1. Suitably equipped field office with telephone and fax machine.
 - 2. Employ and maintain at the job site, during periods of Work on the project, a full time job superintendent.
 - 3. Necessary toilet facilities and change rooms and supplies as required for his employees and the employees of any subcontractor.
 - 4. Storage shed for protection and security of tools, materials and other equipment.
 - 5. Portable generators for construction power in the construction area.
 - 6. Temporary wiring from the individual points of electrical supply for use by the Contractor. Provide all required overhead conductors and supports for routing the electrical energy to the construction areas including required short circuit protection. The complete construction power installation shall conform to the National Electric Code and be approved by the Owner.
 - 7. Temporary lighting.
 - 8. Electrical energy for all construction usage and office requirements, shall be arranged for and be the responsibility of the Contractor.
 - 9. Compressed air needed for construction.
 - 10. All equipment, tools, labor, and expendables required for safety, cleanup, testing, dewatering and freeze protection.
 - 11. All equipment, fuel, electrical power, and construction required for heating Contractor furnished and/or erected equipment and material.

- B. Facilities as listed above shall be of substantial construction and suitable in arrangement and appearance and shall be maintained in a neat, sanitary condition at all times. All such facilities shall be subject to the approval and control of, and shall be placed where directed by the Owner. Portable structures will be acceptable.
- C. Completely remove the above facilities upon completion of all Work and when notified to do so by the Owner.
- D. All charges for long distance telephone service will be paid for by the person placing such calls.

PART 2 - PRODUCTS

Not applicable

PART 3 - EXECUTION

Not applicable

END OF SECTION 015000

SECTION 016100 - MATERIALS AND EQUIPMENT

PART 1 - GENERAL

1.1 MATERIAL

A. Asbestos Materials

1. All materials furnished under this Contract shall not contain any asbestos materials.

B. EQUIPMENT

1. Equipment shall be installed according to manufacturer's instructions and drawings.
2. All items of equipment shall be new and those of the same specifications shall be duplicates of one another to permit maximum interchangeability of assemblies and parts.

PART 2 - PRODUCTS

Not applicable

PART 3 - EXECUTION

Not applicable

END OF SECTION 016100

SECTION 017200 - PROJECT RECORD DOCUMENTATION

PART 1 - GENERAL

1.1 SCOPE

- A. Maintain at the job site a separate set of Engineer's drawings which shall be marked daily to show all changes or revisions occurring during construction. Upon completion of the project, this marked record set shall be given to the Engineer.

PART 2 - PRODUCTS

Not applicable

PART 3 - EXECUTION

Maintain a separate set of Engineer's drawings at the job site. This set shall be marked daily to show all changes or revisions occurring during construction.

END OF SECTION 017200

DIVISION 33 - ELECTRICAL

SECTION 337100 – NORTH END POWERLINE EXTENSION

PART 1 - GENERAL

1.1 SCOPE OF WORK

These specifications cover the furnishing of all labor, specified materials, apparatus, expendable tools and equipment, and all other services required for the construction of one (1) 15 kV pole line associated with improvements to the Municipal Electric System of the City of Dover, Ohio. The base bid consists of the construction/rebuild of approximately 1.7 miles of pole line along with the relocation of existing secondary circuits. The new 15 kV dedicated pole line distribution circuit route will be from the North Intertie Substation to the new plant site located south of Crown Road Northwest and west of North Wooster Avenue. A portion of the dedicated distribution circuit will be an overbuild modification of a pole line that contains either one or two existing distribution circuit lines. Existing distribution conductors and secondary distribution circuits will be relocated to the new poles. The existing poles will have all the circuit hardware removed. The existing poles will be topped immediately above the existing communication/fiber circuits attachments as part of the scope of work. Replacement and new pole line sections are shown in detail on the associated drawings which describes the scope of work for the improvements to the Municipal Electric System of the City of Dover, Ohio.

PART 2 – PRODUCTS

2.1 MATERIAL

- A. All materials required for the relocation of, installation of and modifications to the 15 kV circuits shall be furnished and installed by this Contractor unless otherwise noted.
- B. All materials required for the relocation of, installation of and modifications to the existing secondary circuits shall be furnished and installed by this Contractor unless otherwise noted.

PART 3 – EXECUTION

3.1 CONSTRUCTION AND UPGRADES OF 15 kV POLE LINE AND SECONDARY CIRCUITS

A. 15 kV Overhead Circuits

The new North End 15 kV overhead dedicated feeder circuit, consisting of three (3) 477 kcmil ACSR (18/1) phase conductors, one (1) 3/0 kcmil ACSR (18/1) neutral conductor and one (1) 3/8" 7 strand static wire shall be constructed. The overhead circuit will be operated at 12.47 kV:

1. Construct the new North End 15 kV overhead circuit and reconstruct/reconfigure the two (2) existing 15 kV three (3) phase Tremont and Northwest Feeder circuits as shown on provided drawings. In addition, relocate and reconnect all existing phase

overhead primary circuits and secondary circuits to the new poles as detailed on the drawings.

2. The existing pole line for the Tremont and Northwest Feeder primary circuits and secondary circuits will remain in service during the construction of the new circuit.
3. Since the existing overhead 15 kV primary circuit and secondary circuits shall remain in service during the construction of the new overhead circuit. This contractor will provide proper temporary circuit support equipment for this type of construction. The energizing of the new circuit will occur prior to the removal of the existing overhead circuit and topping of existing poles.

B. Work to be performed by this Contractor

The following 15 kV overhead primary circuits modifications shall consist of three (3) 447 kcmil ACSR (18/1) phase conductors and one (1) 3/0 kcmil ACSR (18/1) neutral conductor, shall be within the scope of work to be constructed by this Contractor as listed below:

1. This dedicated North End circuit will exit the North Intertie Substation protected aisle 15 kV switchgear as an underground feeder in a direct buried conduit using three(3) single conductor 750 MCM copper cable with a ground conductor to a riser pole. The direct buried underground conduit work shall be completed by this contractor and the cable shall be furnished and installed by this contractor. The rise pole will provide the connection point to the existing unused 69 kV line.
2. The North Intertie Substation protected aisle 15 kV switchgear will be the source for the new dedicated North End feeder. This circuit section will utilize a 3 conductor 750 MCM underground conductor within a 6 inch conduit to the riser pole.
3. This contractor will modify the outgoing 69 kV transmission line to free up an existing line section which will be repurposed for use by the new North End feeder circuit. The existing 69 kV circuit will be modified to maintain the 69 kV line existing redundant sources.
4. This contractor will install the new riser pole for connection and continuation of the North End feeder. The new riser pole will connect to the 69kV line section which has been repurposed. This repurposed 69 kV line will be used "as installed" as the first section of the North End dedicated distribution circuit. The new North End distribution circuit will transition off the 69 kV line to a new pole line near Guy Smith Way.
5. The new dedicated North End distribution circuit will then transition to a triple circuit from Guy Smith Way to Highway 80 (Ohio Avenue/Schneiders Crossing Rd NW). The new North End single circuit dedicated pole line will combine with the existing Tremont and Northwest double circuit pole line at Guy Smith Way.
6. The new dedicated North End circuit and the existing Northwest circuit will continue as a double pole line circuit across Highway 80 (Ohio Avenue/Schneiders Crossing Rd NW) and then continue north to Deeds Drive by rebuilding the existing single

circuit distribution circuit into a double circuit with the dedicated North End circuit on the top.

7. This dedicated North End circuit will continue north past Deeds Drive and transition into a single dedicated distribution circuit pole line which will be constructed along railroad track to Crown Road Northwest. The pole line will then turn east on Crown Road Northwest to the primary metering location at the property edge of the plant site.
8. The dedicated North End circuit will follow the railroad tracks north and then with the existing feeders along the railroad track until Highway 80 (Ohio Avenue) on single pole line as a triple circuit. The existing Tremont feeder will be the middle circuit, and the existing Northwest will be the bottom circuit along the triple circuit section of the route. The new dedicated North End circuit will be the top circuit which will continue north along the railroad tracks as a double circuit with the Northwest circuit.
9. New poles will be installed along all sections of this route from where the North End circuit transitions from the existing 69 kV section. This includes where the new circuit is constructed as a single pole line and where it transitions to a triple and double circuit pole line.
10. All existing equipment now served by existing feeder poles will be transferred to new poles.
11. Tree removal work will be required along this route.
12. Secondary circuits shall be relocated and reconnected or constructed along this route as detailed on the drawing.

END OF SECTION 337100

SECTION 337116 - WOOD POLES AND ASSOCIATED MATERIALS

PART 1 - GENERAL

1.1 SUMMARY

- A. This section includes wood poles and associated materials.

1.2 SCOPE OF WORK

- A. Install material being furnished by this Contractor and the Owner in accordance with these specifications.

1.3 SUBMITTALS

- A. Shop Drawings: Manufacturer's drawings, catalog cuts, photographs of all equipment and material being furnished by this Contractor.

PART 2 - PRODUCTS

2.1 MATERIAL FURNISHED BY THE OWNER

- A. The Owner will furnish the following materials. NONE

2.2 MATERIAL FURNISHED BY THE CONTRACTOR

- A. No material will be furnished by the Owner as described in Section 2.1. The Contractor shall furnish all material required for a complete installation as described and detailed within the drawings and these specifications. The Contractor shall furnish the following materials as a minimum. These items of work which are listed here is for Contractor's convenience in understanding the Scope of Work. All required materials are detailed within the drawings provided.

1. All required wood poles. The wood poles can be stored in an Owner's designated storage site located within the City of Dover, Ohio.
 - a. The wood poles shall be Douglas Fir or Southern Yellow Pine and shall conform with American National Standards Institute Standard ANSI 05.1 - 2017, Specifications and Dimensions for Wood Poles are detailed on the drawings. Poles shall be supplied with full length pentachlorophenol pressure treatment in accordance with applicable American Wood Preservers' Association standards. All poles shall be blank.
2. All required overhead conductors, ground/neutral conductors and static wire.
3. All required secondary conductors.
4. All required surge arresters.
5. All required accessories and mounting hardware for all furnished equipment and conductors.
6. All required capacitor banks, pole mounted disconnect switches and fuses. The equipment may be stored upon agreement, at the Owner's designated storage site located within the City of Dover, Ohio.

7. When existing wood poles are removed, all existing equipment and secondary circuits mounted on those poles shall be removed and installed on the new poles. Details are shown on the provided drawings. The owner shall decide if the removed poles will be salvaged or disposed of by this contractor.

PART 3 - EXECUTION

3.1 DELIVERING, TRANSFERRING AND STORING MATERIAL

- A. Furnish all skilled and common labor, all necessary timber, blocking, rollers, tackle, skids, tools, conveyances, and other rigging equipment for delivering, loading, transferring, and unloading of all material. All such rigging equipment shall remain the property of the Contractor.
- B. All rigging equipment shall be removed immediately when no longer needed.

3.2 SETTING OF WOOD POLES

- A. The depth of setting shall be 10% of the pole length plus 2ft unless shown otherwise on the drawings.
- B. Unless otherwise indicated, pole excavations shall be backfilled full depth with thoroughly tamped soil. Complete backfill to grade level before stringing conductors.
- C. All poles shall be set in the plumbed position.
- D. Where rock excavation is required, notify the Owner's representative so that the required setting depths and the amount of rock excavation can be verified. Where rock excavation is required, the Contract price will be adjusted. Rock excavation shall consist of excavating igneous, metamorphic and sedimentary rock and hardpan which cannot be excavated without continuous drilling and blasting or continuous use of a ripper or other special equipment and all boulders of ½ cubic yard or more in volume. Hardpan is defined as cemented soil layers. The hardpan definition shall not be applied to hard clay layers that are not cemented.
- E. Where rock excavation is encountered within the grading limits, the surface of the rock shall be sufficiently exposed to permit adequate measurements to be taken before the rock excavation is started.

3.3 WOOD POLE OVEREXCAVATION

- A. If the soil is not suitable for supporting the required loadings at the normal setting depth, the Engineer shall determine the depth of overexcavation required.
- B. Crushed stone or gravel shall be placed in the overexcavation to bring the bottom of the hole to the proper elevation. The stone or gravel must be thoroughly tamped using mechanical tampers.

3.4 WOOD POLE STRUCTURE ASSEMBLY AND ERECTION

- A. The insulators, crossarms, brackets, and miscellaneous hardware shall be assembled in accordance with the drawings.
- B. Field bore all holes required to install hardware associated with the circuits and guying. All holes field bored in the pole are to be saturated with Thompson's Water Seal wood preservative product.
- C. All through bolts having an extension of greater than 2 inches beyond the nut shall be cut to less than 2 inches and the cut end of the bolt shall be painted with "Galvanox" paint.
- D. It is preferred that the assembled pole structure be raised as a complete unit and placed in the excavation. The balance point must be field determined, since it may vary for each pole.
- E. All adhesive labels and tape shall be removed from insulators.
- F. Switches shall be assembled in accordance with the manufacturer's recommendations.

3.5 STRUCTURE SETTING TOLERANCES

- A. Rotational Tolerance
 - 1. Poles are to be oriented such that the longitudinal axis of the crossarms and post insulators will be perpendicular to the direction of the line at tangent structures and will bisect the interior angle at line deflection points.
 - 2. The ends of the crossarms and post insulators shall not deviate from the above orientations, because of the rotation of the pole by more than 4 inches.
- B. Elevation Tolerances
 - 1. The elevation of the pole shall not vary from that specified by more than 2 inches.
- C. Transverse Alignment Tolerance
 - 1. The longitudinal axis of the pole shall be within 2 inches of the center line as stated.
- D. Vertical Alignment Tolerance
 - 1. Unless otherwise specified, the installed pole shall not vary from a true vertical (plumb) alignment by more than one-half (1/2) of one percent (1%) of the overall length of the pole in either the transverse or in line plane.

3.6 GUYING

- A. Permanent Guys
 - 1. The number and size of guys shall be as specified on the construction drawings.

2. All guys shall be installed and tightened before the conductors are installed, proper allowance being made so that when the conductors are pulled in, the pole will be in correct position. If there is more than one (1) guy on a pole, an adjustment should be made to equalize the tension in the guys so that each guy will take a proportional share of the load.
3. All guys shall be adjusted after sagging and before tying in conductor.

B. Temporary Guys

1. Temporary guys shall be installed at locations where temporarily unbalanced stresses occur and where no permanent guying is specified.
2. The temporary guys shall be of sufficient strength to compensate for unbalanced stress on the pole. If, in their opinion, the temporary guys placed by the Contractor are inadequate for the existing conditions, the Engineer may require additional temporary guying.
3. Temporary guying, if required, shall be installed before stringing or sagging phase conductors.
4. Temporary guys and anchors shall be removed by the Contractor after new conductors have been installed in their permanent positions.

3.7 POWER SCREW ANCHOR INSTALLATION

A. 20,000 Pound Anchors

1. The 20,000 pound power screw anchors described on the drawings have a 8" helix and a 10" helix. These anchors shall be installed to have a minimum holding strength of 20,000 pounds. This holding strength is achieved when the anchors are installed with a minimum of one (1) - 5' anchor rod extension and the anchor is installed with a minimum torque of 2,000 foot pounds. A torque of 2000 foot pounds is achieved when shearing of the torque indicator occurs when four (4) stranded 500 foot-pound pins have been loaded into the torque indicator.
2. Add additional 5' extensions until a minimum of 2,000 foot-pounds of torque is achieved.
3. When more than one (1) - 5' extension is required, the Contract price shall be adjusted.

3.8 ROCK ANCHORS

- A. Where rock anchors are required, the Contract price will be adjusted.

3.9 GROUNDING

A. Ground Rod Installation

1. Unless otherwise indicated, all 15 kV structures shall be connected to a new driven ground.

2. A minimum of 16 feet of ground rod will be driven at each 15 kV structure unless an underground obstruction prevents further driving.
3. A maximum of 32 feet of ground rod will be driven at any one (1) structure in attempting to obtain a ground resistance of 25 ohms or less, as verified by resistance measurement.
4. This Contractor shall perform the resistance measurement.
5. If the measured resistance of the driven grounds is greater than 25 ohms at five (5) or more adjacent grounded structures, the Contractor shall notify the Engineer.
6. Record the test date, resistance of the ground and the length of the ground rod installed at each structure. Submit this report to the Engineer.

B. Measurement of Ground Resistance

1. The method used to measure ground resistance shall be the three-point method using a groundometer type instrument. Recommended instruments for the measurement of ground resistance include the Biddle "Meg" Ground Tester, Biddle "Megger" Null Balance Earth Tester, and the Associated Research "Vibro Ground". Any other instrument must be approved by the Engineer.
2. All testing equipment shall be provided by this Contractor.

END OF SECTION 16350

SECTION 337351 - CONDUCTORS AND ASSOCIATED MATERIAL

PART 1 - GENERAL

1.1 SUMMARY

- A. This section includes conductors and associated materials.

1.2 SCOPE OF WORK

- A. Install material being furnished by this Contractor and the Owner in accordance with these specifications.

1.3 SUBMITTALS

- A. Shop Drawings: Manufacturer's drawings, catalog cuts, photographs of all equipment and material being furnished by this Contractor. See Division 1 for submittal instructions.

PART 2 - PRODUCTS

2.1 MATERIAL FURNISHED BY OWNER

- 1. None

2.2 MATERIAL FURNISHED BY THE CONTRACTOR

- A. No material is being furnished by the Owner as described in Section 2.1 above, the Contractor shall furnish all required construction materials as detailed on the drawings.

- B. Overhead Conductor Cable System

- 1. The Contractor shall furnish and install all required Overhead Conductor Cable wire, post insulators, and accessories. This material is described in the Material List on the drawings.

- C. Multiplex Secondary Cables

- 1. The Contractor shall furnish and install multiplex secondary cables where necessary as described in the Pole Construction Tabulation Bill of Materials (BOM) on the drawings. All multiplex cables shall be rated 600 volts, phase to phase, and have a rated temperature of 90 degrees C. All multiplex cables shall meet the specifications of multiplex cables manufactured by the Southwire Company. Allowable multiplex cables ampacities shall be those defined in the Southwire Company catalog. Insulation shall be vulcanized, interlinked polyethylene (VIP). Messengers shall be ACSR neutral messengers. Phase conductors shall be stranded, compressed 1350-H19 aluminum.

- a. Duplex Cables shall be a minimum size of No. 2 AWG, Code Word Chow/VIP, with an ampacity of 150 amperes. Where existing two (2) conductor secondary circuits with a higher ampacity are being replaced,

the Contractor shall install a duplex cable to match or exceed the ampacity of the circuit being replaced.

- b. Triplex Cables shall be a minimum size of 4/0 AWG, Code Word Zuzara/VIP, with an ampacity of 315 amperes. Where existing three (3) conductor secondary circuits with a higher ampacity are being replaced, the Contractor shall install a triplex cable to match or exceed the ampacity of the circuit being replaced.
- c. Quadruplex Cables shall be a minimum size of 336.4 kcmil, Code Word Bronco/VIP, with an ampacity of 370 amperes. Where existing four (4) conductor secondary circuits with a higher ampacity are being replaced, the Contractor shall install a quadruplex cable to match or exceed the ampacity of the circuit being replaced.

PART 3 - EXECUTION

3.1 DELIVERING, TRANSFERRING AND STORING MATERIAL

- A. Furnish all skilled and common labor, all necessary timber, blocking, rollers, tackle, skids, tools, conveyances, and other rigging equipment for delivering, loading, transferring and unloading of all material. All such rigging equipment shall remain the property of the Contractor.
- B. Reels of conductor, when in storage sites or stored along the right-of-way, shall be placed on planking or other suitable material to keep them from sinking into the ground.
- C. Reels shall be lifted, using equipment of suitable capacity for the weight involved, which will in no way damage the conductor or reels. When the reels are lifted by the axle supported from above, a spreader bar shall be used to prevent conductor and reel damage by inward pressure on the reel flange. In no case are the reels to be rolled on their rims or laid on their sides.
- D. Conductor reels in transit from the storage site to the delivery point on the circuit right-of-way shall be securely tied down to prevent rolling.
- E. Full reels shall be transported with lagging installed.
- F. Partial reels shall be transported with suitable protection against sand, stones, mud and other sources of damage.

3.2 STRINGING AND SAGGING OF OVERHEAD CONDUCTOR

- A. The new 15 kV overhead phase conductors are components of the distribution system. The overhead phase conductor cable system shall be installed in accordance with Conductor Vendor recommendations.
- B. Conductors

1. All conductors shall be entirely free from crooks and kinks when strung in position and shall not hang loosely between supports.
2. Exercise diligent care in the handling and installation of all conductors to prevent damage to the conductor and to minimize scrap.

C. Stringing Blocks

1. All stringing blocks shall have elastomer lined grooves. The minimum radius and depth of the grooves and the minimum diameter of the blocks shall conform to the recommendations contained in IEEE Standard 524 - 2016, IEEE Guide to the Installation of Overhead Transmission Line Conductor.
2. The stringing blocks shall be inspected periodically to ensure that the blocks are intact and that there is not foreign material embedded in the grooves that will damage the conductor. All foreign materials shall be removed from conductors. The blocks used for conductor stringing shall be equipped with well lubricated ball or roller bearings and shall have grooves of suitable size and shape for the cable being strung.
3. Choose the proper strength block for each application.
4. The equipment and methods used for stringing the conductors shall be such that the conductors and poles will not be damaged.
5. During stringing and sagging operations, the pulling device or catchoff anchor shall be located, unless otherwise approved by the Owner, so that any cable under tension will have a slope of not more than 1ft vertical to 3 ft horizontal.

D. Guard Poles

1. Guard poles and other temporary structures shall be installed where required to maintain the safety of the wire stringing operation.
2. Guard poles requirements will be determined by the Owner and when necessary will be furnished by the Owner and will be returned to the Owner's storage site in good condition.
3. Guard poles shall be set at minimum height so that conductors will clear. At no time should the conductors be allowed to ride on the guard structures.

E. Sagging

1. Sag the bare overhead conductors in conformance with the stringing sag tables included on the drawings. Sags shall not be less than specified or exceed by more than 3" the sag specified. (Maximum tension 3000 lbs, Sag = 28"@ 90F)
2. Sagging operations shall not be performed when wind or other adverse weather conditions would prevent accurate sagging.

3. It is preferred that sags shall be determined by the sight-and-sag method.
4. Procedures for use of tension dynamometers in lieu of sight-and-sag method shall be submitted to the Engineer for approval prior to its use.
5. Furnish to the Engineer a overhead conductor sagging report which shall contain as a minimum the following information for each sagging operation.
 - a. Line section sagged; inclusive structure numbers.
 - b. Date of sagging operation.
 - c. Conductor temperature.
 - d. Check span(s) in which sag measured, inclusive structure numbers.
 - e. Length of check span(s), by field measurement.
 - f. Sag installed in check spans for each conductor type and size.

3.3 DEAD ENDING AND CLIPPING CONDUCTOR

- A. Angle and dead end points shall be tied in before tangent structures.

3.4 SPLICES

- A. All overhead conductor tension splices shall be a minimum distance of 15' from the nearest support, shall be compression full tension type line splices and shall be low resistant type, capable of holding the ultimate strength of the conductor without failure.
- B. Conductor jumpers shall be made continuous wherever feasible.
- C. Where jumper splices are required, only one (1) splice per jumper shall be used. All 15 kV conductor jumper splices shall be compression type.
- D. Tension splices and jumper splices shall be installed in accordance with the manufacturer's instructions.
- E. It is preferred that no tension splices be installed in the 477(18/1) kcmil compacted aluminum phase conductors. If splices cannot be avoided, install partial tension compression sleeves in accordance with the Vendor recommendations.

3.5 PHASING

- A. Arrange the positions of the phase conductors to be compatible with the phasing of the Owner's existing circuits.
- B. The standard phasing arrangement of the Dover system is:
 - A Phase – North and West
 - B Phase – Middle
 - C Phase –South and East
- C. The Owner shall verify phasing arrangement during construction.

3.6 REMOVAL OF EXISTING 15 kV CONDUCTORS

- A. There should be no existing overhead line conductors removed but if sections are removed/replaced then 15 kV conductors and neutral conductor longer than 100 feet shall be wound on empty reels furnished by the Owner. These empty reels will be made available at the Owner's designated storage site located within the City. The Owner shall determine the best location to store spent poles, transformers, conductors and other materials.

END OF SECTION 337351

SECTION 337352 - TRANSFER AND REMOVAL OF EXISTING CIRCUITS AND EQUIPMENT

PART 1 - GENERAL

1.1 SUMMARY

- A. This section includes the transfers and removals of existing circuits and equipment.

1.2 SCOPE OF WORK

- A. Furnish all labor and specified material required for the transfer of existing circuits and equipment between existing and new structures and for the removal of existing poles and materials as specified herein, as indicated on the drawings or as required to make the job a complete installation.
- B. The transferring or removal and replacement shall include 15 kV primary circuits, secondary circuits, roadway lights, transformers, surge arresters, switches, capacitors, and guys.

1.3 SUBMITTALS

- A. Shop Drawings: Manufacturer's drawings, catalog cuts, photographs of all equipment and material being furnished by this Contractor. See Division 1 for submittal instructions.

PART 2 - PRODUCTS

2.1 MATERIAL REQUIRED FOR TRANSFERS

- A. The Owner will furnish the following circuit materials required for the transferring of existing circuits:
 - 1. None.
- B. The Contractor shall furnish all other required construction materials.
 - 1. All required wood poles, conductors, transformers, switches, surge arresters and equipment/hardware detailed on bill of material on the drawing.
- C. All new materials shall be used in the relocation and transfer of the 15 kV circuits and associated equipment.
- D. When transferring the existing 15 kV circuits, secondary circuits and associated equipment, the Contractor is permitted to reinstall material removed from the circuit being transferred, if the material is in good condition. If the material to be transferred is not in good condition, the Contractor shall furnish all material required for the transferring. The Contractor's bid shall include this new material. Adjustments will be made when material is reinstalled.

PART 3 - EXECUTION

3.1 TRANSFER OF EXISTING CIRCUITS AND EQUIPMENT

- A. Unless otherwise noted, it is the intent of these specifications that existing primary circuits and equipment be replaced and new equipment installed. Transferring applies to secondary circuits that are in good as-found condition. An otherwise general upgrading of the transferred equipment is not required.
- B. Existing poles hardware shall be removed and hauled to the Owner's storage site located within the City of Dover, Ohio. All existing crossarms, hardware and materials on removed poles, which is not reinstalled, shall be completely disassembled. The existing topped poles are remaining in place to maintain the attachment points for the communication/fiber cables.
- C. When existing wood poles are removed, all existing transformers mounted on those poles shall be removed and installed on the new poles. Any removed transformers shall be hauled to the Owner's storage site located within the City of Dover, Ohio.
- D. All material, other than poles and transformers, which is removed from existing structures and not reinstalled shall be disassembled and be hauled to the Owner's storage site located within the City of Dover, Ohio.
- E. The material used for transferring circuits and equipment, such as necessary wire, splices, bolts, and tie wire shall be of the type and substance to assure proper support of the transferred equipment.
- F. Temporarily relocate existing circuits to permit the installation of new poles, guys, and conductors and leave existing circuits in a safe condition.
- G. Unless otherwise indicated, the existing 15 kV circuits and equipment shall be transferred to new poles at elevations which will allow for conformation to the elevations and vertical clearances of existing circuit installations and conform to the new circuit elevations.
- H. Field gain all poles where new equipment is to be installed. Field bore all holes required to install hardware associated with the 15 kV circuit, and guying. All field bored holes and field gains shall be saturated with Thompson's Water Seal wood preservative product.
- I. Install new anchors and rearrange existing guys, as required, to maintain proper clearances between new conductors and all guys.
- J. Install new conductors and splices, where required, for the transferring of existing circuits from old poles to new poles. Where new conductors are required to be spliced into primary phases and neutrals, the new conductor shall match the existing in size and type.
- K. Where anchor rods are to be abandoned, cut off the rods at least 12" below grade.
- L. Backfill and tamp all holes in the ground resulting from the removal of poles.
- M. The transfer of foreign utilities will be performed by the owners of those utilities.
- N. The transfer of traffic control equipment will be performed by others.

END OF SECTION 337352

SECTION 337354 - MISCELLANEOUS WORK

PART 1 - GENERAL

1.1 SUMMARY

- A. This section includes miscellaneous electrical work.

1.2 SCOPE OF WORK

- A. Furnish required materials and services for tree trimming, stump removal and the restoration of damage to property, resodding of damaged grass areas, painting, and clean up to provide for a complete project. All trees that are to be removed shall be marked prior to removal.

PART 2 - PRODUCTS

Not Applicable.

PART 3 - EXECUTION

3.1 RESTORATION OF DAMAGE TO PROPERTY

- A. Be responsible for any or all damage to utilities or other facilities such as sewers, water lines, gas lines, fiber optic cables, underground or overhead electric power or communication line and the like, due to the negligence of this Contractor or his employees.
- B. Repair areas of existing concrete and asphalt sidewalks which are damaged by the installation of new poles. Fill holes in existing concrete and asphalt sidewalks where existing poles and anchors are removed. The existing sidewalks shall be saw cut and a four (4) inch layer of concrete or asphalt shall be installed to match the existing sidewalk.
- C. Promptly repair and restore all structures, including fences, damaged by this Contractor during the progress of the Work. In lieu of such repairs, and if agreeable to the Owner of the damaged structure, the Contractor may make a fair and equitable monetary compensation to such Owner.
- D. Wherever, lawns or shrubs or other decorative growth which has not been designated for removal and is damaged by this Contractor, during the progress of the Work, promptly correct such property damage by replacing the damaged growth. In lieu of such replacement, and if agreeable to the Owner of the damaged growth, the Contractor may make a fair and equitable monetary compensation to such Owner.
- E. Make fair and equitable payments for any crops damaged by this Contractor. This requirement does not apply to crops located on the Owner's right-of-way.

3.2 SODDING

- A. Furnish all labor, materials, transportation, and sod required to repair all mown lawns, maintained by both the Owner and private property owners damaged in any manner during progress of his Work.
- B. The sod furnished shall be Kentucky or Canadian blue grass sod.

- C. Sod shall be kept moist during handling and shall be thoroughly moistened after it is laid.
- C. After laying, the sod shall be sprinkled thoroughly and tamped with suitable sod tampers sufficient to incorporate the sod with the sod bed and ensure tight joints between sections or strips.
- E. Upon completion of the Work, the surface of the sod shall coincide with existing grade.
- F. No sod shall be placed during freezing weather nor shall any sod be placed on frozen ground.
- G. Guarantee the sodding as placed for a period of one (1) year. During that time, any areas in which the sod dies or fails to grow shall be torn up and resodded at no additional cost to the Owner.

3.3 PAINTING

- A. Any equipment marred or scratched by this Contractor shall be touched up or repainted by this Contractor using paint similar in color and texture to that used originally on the equipment.

3.4 CLEAN UP

- A. Excess excavated materials resulting from the setting of poles shall be spread over the area around and adjacent to the poles within the limits of the right-of-way if the area conditions permit.
- B. In all other areas including streets, alleys, and lawns, all excess material shall be removed from the premises.
- C. Material placed around the poles shall be graded to slope away from the poles. Care shall be taken to keep excavated material out of drainage ditches.
- D. All stones, in excess of 1 inch diameter, turned up during construction, shall be removed from the premises.
- E. Clean up and remove all debris, excess earth, and rubbish that may accumulate in connection with the Work under this Contract. Streets, alley and private property must be kept clear and free from rubbish at all times and must be left in a neat and orderly condition at the end of each day's work.
- F. Excess earth placed around new poles shall be disposed of when directed by the Owner.
- G. Repair ruts caused by the Contractor.

3.5 FENCES

- A. Any fences temporarily opened for construction access shall be restored to their original condition at the end of the construction period.

3.6 TREE TRIMMING

- A. This Contractor shall provide all required tree trimming and removal services.
1. The tree trimming shall provide a minimum clearance between conductors and the nearest portion of a tree. The clearance requirement is five (5) feet for 15 kV circuits.
 2. The Contractor shall be responsible for the removal and disposal of all logs, brush, and debris resulting from the tree removal and trimming operation.
 3. Unless otherwise indicated, the stumps of trees which have been totally removed shall be removed and the area landscaped to grade that is appropriate to the surrounding area.

END OF SECTION 337354

DOVER MUNICIPAL ELECTRIC SYSTEM

CONTRACT NO. 024-02083-00 – NORTH END POWERLINE EXTENSION

LIST OF DRAWINGS:

Construction Drawing Set Contains Sheets E001 thru E022