

**CITY OF WILSON
WILSON, NORTH CAROLINA**

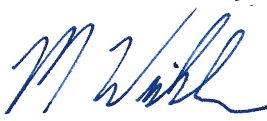
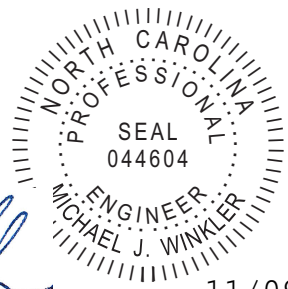
**SPECIFICATIONS AND BID DOCUMENTS FOR
TWO (2) 115 kV CIRCUIT BREAKERS
BID #2023-47-RA**

ISSUED FOR BID

**CITY OF WILSON
WILSON, NORTH CAROLINA**

**SPECIFICATIONS AND BID DOCUMENTS FOR
TWO (2) 115 kV CIRCUIT BREAKERS
BID #2023-47-RA**

ISSUED FOR BID



11/09/2023

**Booth & Associates, LLC
2300 Rexwoods Drive Ste. 300
Raleigh, NC 27607
License No. F-0221**

November 2023

**CITY OF WILSON
WILSON, NORTH CAROLINA**

**SPECIFICATIONS AND BID DOCUMENTS FOR
TWO (2) 115 kV CIRCUIT BREAKERS
BID #2023-47-RA**

TABLE OF CONTENTS

<u>REQUEST FOR PROPOSAL</u>	<u>PAGE NO.</u>
Notice to Prospective Bidders	N - 1
Definitions	D - 1
Instructions to Bidders	IB - 1
General Conditions.....	GC - 1
City of Wilson, NC – Term and Conditions	T&C - 1

FORM OF PROPOSAL

Terms and Conditions	P - 2
Bidder’s Proposal	P - 4
Bid Schedule	P - 5
Affidavit of Bidder	P-8
Debarment Certification.....	P - 9
Lobbying Certification	P - 11
Form of Exceptions	P - 12
Bidder Inserts: Addenda/ Clarifications/ Bulletins.....	P - 13
North Carolina Bid Bond	P - 14

TECHNICAL SPECIFICATIONS

1.0 Scope	S - 1
2.0 General Conditions.....	S - 1
3.0 Special Conditions	S - 1
4.0 Standards	S - 2
5.0 Drawings and Instruction Books.....	S - 2
6.0 Manufacturer’s Field Representative	S - 4
7.0 Power Circuit Breaker(s).....	S - 4
8.0 Spare Parts.....	S - 13
9.0 Tests	S - 14

APPENDICES

1. Breaker Data Sheet
2. Typical Alarm Connections
3. Vicinity Map

REQUEST FOR PROPOSAL

NOTICE TO PROSPECTIVE BIDDERS

Sealed Proposals for the furnishing and delivery of all materials and equipment (except materials and equipment specified to be furnished by the Owner) complete and conforming to the bid documents for two (2) 115kV circuit breaker(s) for POD 13, as set forth in the Bid Schedules, will be received by The City of Wilson of Wilson, North Carolina (hereinafter referred to as the Owner) at the offices of their Consulting Engineer, Booth & Associates, LLC, 2300 Rexwoods Drive, Suite 300, Raleigh, North Carolina 27607, on or before **2:00 PM, Local Time, Monday, November 20, 2023**, at which time the Proposals will be opened and read. Any Proposal received after that time will be promptly returned to the Bidder unopened.

The Specifications, together with all necessary forms and other documents for the Bidder, may be obtained from the Owner's Engineer, Booth & Associates, LLC, 2300 Rexwoods Drive, Suite 300, Raleigh, North Carolina 27607, to the attention of the contact on the attached Data Sheet.

Proposals and all supporting instruments must be submitted on and in the format of the forms furnished in the Form of Proposal of these bid documents. Proposals will be considered final at the time of bid opening. No alterations or interlineations will be permitted unless made before the bid opening and initialed and dated. Prior to the submission of the Proposal, the Bidder shall make and shall be deemed to have made a careful examination of the bid documents on file with the Owner and with the Engineer and of all other matters that may affect the cost and the time of the work.

The name and address of the Bidder, its license number (if a license is required by the State), and the following description must appear in the email in which the Proposal is submitted:

**“BID FOR TWO (2) 115 kV CIRCUIT BREAKERS
FOR CITY OF WILSON NOT TO BE OPENED UNTIL
2:00 PM, LOCAL TIME, MONDAY, NOVEMBER 20, 2023**

The Owner reserves the right to (1) waive minor irregularities or minor errors in any Proposal if it appears to the Owner that such irregularities or errors were made through inadvertence. Any such irregularities or errors so waived must be corrected on the Proposal prior to its acceptance by the Owner; (2) reject any or all Proposals and hold any or all Proposals for a period of sixty (60) days from the date of opening thereof; (3) accept the bid, in its opinion, that represents the best value for the Owner, regardless of whether such bid is the lowest price; and (4) award Purchase Order(s) to Bidder(s) for any Schedule(s) individually or collectively from the Bid Schedules.

Each Proposal shall be accompanied by cash, cashier's check, or certified check drawn on a bank insured by the Federal Deposit Insurance, payable to the Owner, in an amount not less than five percent (5%) of the total bid as a guarantee that a Purchase Order, if awarded, will be accepted. In lieu thereof, a Bid Bond may be submitted by the Bidder in an amount not less than five percent (5%) of the total bid (see attached Bid Bond form). The total bid price for which the five percent (5%) applies shall be the total of all schedules.

**CITY OF WILSON
WILSON, NORTH CAROLINA**

By Ricky Wilson
 Purchasing Manager

Date: November 9, 2023

DEFINITIONS

Whenever the following terms or pronoun in place of them are used in these *Instructions to Bidders, Form of Proposal, Technical Specifications, Purchase Order*, bond, etc., the intent and meaning shall be interpreted as follows:

Owner	City of Wilson Wilson, North Carolina
Purchasing Manager	Mr. Ricky Wilson; or his authorized assistant
Consulting Engineer	Booth & Associates, LLC
Observer	An authorized representative of the Owner assigned to make any or all necessary observations of work performed, and equipment and/or apparatus furnished by the Bidder
Bidder	Any individual, firm, or corporation submitting a Proposal for the work contemplated, acting directly or through a duly authorized representative; or party of the second part of the Purchase Order, acting directly or through a duly authorized representative
Subcontractor	An individual, firm, or corporation who contracts with the Bidder to perform part of the latter's work
Surety	The body, corporate or individual, approved by the Owner, which is bound with and for the Bidder who is primarily liable, and which engages to be responsible for his acceptable performance of the work for which he has contracted
Form of Proposal, Proposal	The approved, prepared form on which the Bidder is to submit or has submitted his Proposal for the work contemplated
Bid Security	To all bids there shall be attached cash, cashier's check, or certified check from the Bidder upon a bank or trust company insured by the Federal Deposit Insurance Corporation or the Savings Associates Insurance Fund, or in lieu thereof, a Bid Bond
Plans, Drawings	All Drawings or reproductions of Drawings pertaining to the construction under the Purchase Order
Technical Specifications	The directions, provisions, and requirements contained herein pertaining to the method and manner of performing the work or to the quantities and qualities of materials to be furnished under the Purchase Order

Purchase Order	The agreement covering the furnishing of equipment and/or apparatus and the performance of the work. The Purchase Order shall include the <i>Instructions to Bidders, General Conditions, Form of Proposal, Plans, Technical Specifications,</i> and Acknowledgments
Performance Bond (Not required)	The approved form of security to be approved by the Owner furnished by the Bidder and his Surety as a guarantee of good faith on the part of the Bidder to accept the work in accordance with the terms of the Specifications and Purchase Order
Payment Bond (Not required)	The approved form of security to be approved by the Owner furnished by the Bidder and his Surety as a guarantee for payment of all Subcontractors on the part of the Bidder in acceptance of the work in accordance with the terms of the Specifications and Purchase Order
Work	The performance of the project covered by the Specifications or the furnishing of labor, machinery, equipment, tools, or any other article or item being purchased by the Owner
Emergency	A temporary unforeseen occurrence or combination of circumstances which endangers life and property and calls for immediate action or remedy
Work at Site of Project	Work to be performed, including work normally done on the location of the project
Bid Documents	Include all sections of the <i>Request for Bids, Form of Proposal, Technical Specifications</i> and <i>Appendices, Addendum/ Clarifications/ Bulletins,</i> and Drawings

The subheadings in these Specifications are intended for convenience or reference only and shall not be considered as having any bearing on the interpretations thereof.

INSTRUCTIONS TO BIDDERS

1.0 Bidder Qualification

- 1.1 Bids will be accepted only from Bidders deemed by the Owner or the Engineer to be qualified to provide the materials, equipment, and services described by these Specifications. The experience of Bidders in providing the same or similar materials, equipment, and services will be a major factor in determining qualification. The Bidder shall include information to establish qualifications.
- 1.2 Prospective Bidders who wish to submit a bid, but are not presently qualified, may receive consideration by submitting a completed Bidder's Qualification Form, which requires product line and user list, to the Engineer at least ten (10) days prior to the specified bid opening date and time. The Bidder's Qualification Form may be obtained from the Engineer.

2.0 Proposals

- 2.1 To warrant consideration, Proposals must comply with these instructions. Strict adherence to these Specifications and Drawings is requested to facilitate review and consideration of the Proposal.
- 2.2 Bids not received on Booth & Associates, LLC *Form of Proposal* contained herein will be considered unresponsive. The forms shall be filled out complete; any omissions may cause the entire Proposal to be rejected.
- 2.3 Proposals must be made on the *Form of Proposal* provided herein and must not be altered, erased, or interlined in any manner. The Bidder shall fill in the *Form of Proposal* as detailed in the *Terms of Conditions*. The Bidder may retain one (1) copy, but the original, fully executed, must be inserted in or attached to the Specification documents. In addition, one (1) extra copy of all executed forms and supporting information shall be supplied.
- 2.4 The Bidder shall furnish certain information, as required by the bid documents regarding the equipment on which he is bidding. Two (2) copies of the information, together with the Manufacturer's literature setting forth the guarantees and describing the equipment on which he is bidding, shall be included as part of the Proposal. If one (1) Manufacturer is bidding through two (2) or more agents or representatives, then descriptive literature, guarantees, etc., may be submitted in duplicate in one sealed envelope, which will be considered and treated as though it contained a sealed bid. This envelope shall contain a list of the names of Bidders to whom the information applies. Each sealed bid Proposal without this information shall state the Manufacturer who is furnishing the information. Additional sets of the Specifications may be obtained upon a payment of fifty dollars (\$50.00) non-refundable deposit by approved Bidders.
- 2.5 Bids may be modified by the Bidder's removal of his original and the submittal of a completely revised bid package in full compliance with the bid documents if received prior to the time of opening bids and if included in the public reading of such bids. No oral or telephonic Proposals will be considered.
- 2.6 Proposals shall include a *Form of Exceptions* utilizing forms provided which shall itemize each and every exception from the bid documents. The *Form of Exceptions* shall state the section, subsection, and paragraph designations from the part of the Specifications to which exception is taken and explain in detail the nature of the exception. A copy of this *Form of Exceptions* is included in the *Form of Proposal*. Exceptions will not necessarily eliminate a Bidder from consideration, even if bids without exceptions are received from others. The treatment of exceptions will be based entirely on the overall best interests of the Owner. **Certain exceptions (e.g., failure to provide rigging and unloading at the site, or failure**

to properly provide field assembly supervision on testing) may result in the entire bid Proposal being rejected.

- 2.7 Should the Bidder find discrepancies in the documents or fail to understand their meaning, he shall immediately notify the Engineer, who will send written instructions to all Bidders. Neither the Owner nor the Engineer will be responsible for any oral instructions.
- 2.8 The Bidder shall be the Manufacturer of the equipment, or the Bidder shall submit with the *Form of Proposal* a notarized statement that the Bidder is authorized by the Manufacturer to tender the Proposal as submitted and that the Manufacturer will guarantee the suitability and adequacy of the equipment proposed, and will be bound by the Specifications, as though the Manufacturer had submitted the Proposal.
- 2.9 In the event the Bidder proposes any change or deviation from the Engineer's Plans and Specifications, such Proposal changes or deviations must be submitted at the time bids are opened. The Owner reserves the right to reject any such proposed changes or deviations. All exceptions must be stated on the *Form of Exceptions*. Failure to submit a *Form of Exceptions* will imply strict adherence to the Plans and Specifications.
- 2.10 No bid Proposal may be withdrawn after the scheduled closing time for the receipt of bids for a period of sixty (60) days pending the execution of a Contract by the successful Bidder. Should the successful Bidder default and not accept the Contract, then the Contract may be offered to the next lowest responsible Bidder whose Proposal is evaluated as acceptable.
- 2.11 Prior to submission of the Proposal, the Bidder shall make and shall be deemed to have made a careful examination of the Plans and Specifications on file with the Owner and with the Engineer and all other matters that may affect the cost and the time of completion of the work.
- 2.12 The Contract, when accepted, shall be deemed to include the Specifications for the equipment, and the Bidder shall not claim any modification thereof resulting from any representative or promise made at any time by an officer, agent, or employee of the Owner or by any other person.
- 2.13 The Owner reserves the right to accept any schedule, combination of schedules, or any portion of a schedule.

3.0 Bid Security

- 3.1 Each Proposal shall be accompanied by cash, cashier's check, or a certified check drawn on a bank or trust company insured by the Federal Deposit Insurance Corporation, or a Bid Bond in an amount equal to not less than five percent (5%) of the Proposal. The Owner will retain the said deposit as liquidated damages in event of failure of the Successful Bidder to execute the Purchase Order within ten (10) days after the award.
- 3.2 Bid Bond shall be conditioned that the Surety will upon demand forthwith make payment to the Obligee upon said Bond if the Bidder fails to accept the Purchase Order in accordance with the Bid Bond, and upon failure to forthwith make payment, the Surety shall pay to the Obligee an amount equal to double the amount of said Bond.
- 3.3 Only one (1) Bid Bond is required, the amount of which shall be based on the total amount of the bid. The value for the Bid Bond shall be based on the Bid Schedule of the maximum total amount. The beneficiary of the bid bond is the City of Wilson at 1800 Herring Avenue E, Wilson, NC 27893-6727.

4.0 Performance Bond/Payment Bond

A Performance Bond/Payment Bond is not required for this project

5.0 Bulletins and Addenda

Any bulletins issued during the time of bidding or addenda to Specifications are to be considered covered in the Bidder's Proposal, and in closing a Purchase Order they will become a part thereof. Receipt of addenda shall be acknowledged by the Bidder on the Bidder's Proposal Form.

6.0 Shipment and Delivery of Equipment

- 6.1 The power circuit breaker(s) shall be shipped to the site with unloading by the Owner, as defined by the attached Vicinity Map. Assembly of any component parts removed for shipment and field testing of the unit will be performed by the Owner. The Manufacturer's Field Service Engineer shall supervise the assembly and test unit in accordance with the Manufacturer's recommendations under a separate line item in the Proposal.
- 6.2 Units are to be shipped utilizing an open-top truck to facilitate unloading with a crane or fork truck. Units are to be shipped direct from the manufacturing site, with no intermediate transfers. Shipping with the Manufacturer's own trucks is preferred.
- 6.3 Before shipment, power circuit breakers shall be completely assembled to determine that all parts fit properly. Parts removed for shipment shall be marked so as to permit easy identification when reassembling.
- 6.4 Method of packing and loading shall be such as to protect all parts from dampness, corrosion, breakage, or vibration injury that might reasonably be encountered in transportation, storage and handling.
- 6.5 Release for shipment is to be granted by the Owner or the Engineer based upon the Manufacturer's compliance with the following:
 - 6.5.1 Fourteen (14) consecutive days prior notification of tests so the Owner may have a representative present for witness of the tests.
 - 6.5.2 Furnishing of the requisite number of copies of the Final Drawings as called for in the Specifications.
 - 6.5.3 Coordination of manufacturing and delivery with Owner's construction schedule as may be noted in these Specifications.
 - 6.5.4 Thirty (30) days notification of tentative shipping schedule and forty-eight (48) hours notification prior to all deliveries.
- 6.6 Delivery of all items of equipment shall be made at such time as to permit unloading between the hours of 9:00 a.m. and 3:00 p.m., Monday through Thursday, holidays excluded. The Owner will furnish escort to the substation site. Ultimate delivery shall be at the discretion of the Owner.

7.0 Award of Purchase Order

- 7.1 The issue of a Purchase Order will be made to the lowest acceptable Bidder as soon as practical, provided that in the selection of materials and equipment, a Purchase Order may be awarded to a responsible Bidder other than the lowest in the interest of standardization, or ultimate economy if the advantage of such standardization or ultimate economy is clearly evident. The Owner reserves the right to reject any and all bids.
- 7.2 The Owner reserves the right to waive minor irregularities or minor errors in any Proposal if it appears to the Owner that such irregularities or errors were made through inadvertence. The Owner must correct any such irregularities or errors so waived on the Proposal prior to its acceptance.
- 7.3 In estimating the lowest cost to the Owner as one of the factors in deciding the award of the Purchase Order, the Owner will consider, in addition to the prices quoted in the Proposal, the following:
 - a. Equipment delivery (days)

- b. Adherence to the Plans and Technical Specifications
- c. Evaluation of equipment suitability to the system as noted and submitted by the Bidder
- d. The Bidder's intended method of shipment of the materials and equipment

8.0 **Approval Drawings**

- 8.1 Receipt of "Approval Drawings" by the Bidder constitutes authorization for manufacture predicated upon the Drawings and corrections found thereon. After the return of Approval Drawings, release for shipment is to be granted by either the Owner or its Engineer, based upon the Manufacturer's compliance with the following:
 - 8.1.1 Furnishing of the requested number of copies of the Final Drawings as called for in the *Technical Specifications*.
 - 8.1.2 Thirty (30) days notification of tentative shipping schedule and forty-eight (48) hours notification prior to delivery.
 - 8.1.3 Coordination of manufacturing and delivery with the Owner's construction schedule.

9.1 **Payment**

- 9.1 Payment by the Owner to the Successful Bidder shall be made in a lump sum for each item after delivery and it has been verified that the equipment meets the Specifications. Compliance to Specifications shall be verified within ninety (90) days of the date of delivery.
- 9.2 Invoices shall be submitted in triplicate to the Owner's Engineer for review and approval. The address for submittal of all invoices is: Booth & Associates, LLC, 2300 Rexwoods Drive, Raleigh, North Carolina 27607, Attn: Michael Winkler, PE (michael.winkler@booth-assoc.com), cc Eric Danner (eric.danner@booth-assoc.com).
- 9.3 There shall be a ten-percent (10%) retainage on invoices until all equipment, with proper instruction books per Specifications and certified test reports have been approved and accepted by the Owner and the Engineer. The Owner reserves the right to hold this retainage for a period of up to ninety (90) days without penalty to verify completeness of delivery. Deviation from the foregoing payment provisions will be considered less responsive.

GENERAL CONDITIONS

1.0 Drawings and Specifications

The Drawings and Specifications are complementary, one to the other. That which is shown on the Drawings or called for in the Specifications shall be as binding as if it were both called for and shown. The intention of the Drawings and Specifications is to include all labor, materials, transportation, equipment, and any and all other things necessary to do a complete job. In case of discrepancy or disagreement in the Purchase Order Documents, the order of precedence shall be: Purchase Order, Technical Specifications, Large-Scale Detail Drawings, and Small-Scale Drawings.

2.0 Clarifications and Detail Drawings

In cases where the nature of the work requires clarification by the Engineer, such clarification shall be furnished by the Engineer with reasonable promptness by means of written instructions or Detail Drawings or both. Clarifications and Drawings shall be consistent with the intent of Purchase Order Documents and shall become a part thereof.

3.0 Copies of Drawings and Specifications

The Engineer will furnish free of charge to the Bidder one (1) copy of Plans and Specifications for each breaker. Additional copies may be obtained from the Engineer for a fifty-dollar (\$50.00) non-refundable payment.

4.0 Ownership of Drawings and Specifications

All Drawings and Specifications are instruments of service and remain the property of the Engineer whose name appears thereon. The use of these instruments on work other than this Purchase Order without permission is prohibited. All copies of Drawings and Specifications other than Purchase Order copies shall be returned to the Engineer upon request after completion of the work.

5.0 Royalties, Licenses, and Patents

It is the intention of the Owner that the work covered in these Purchase Order Documents will not constitute in any way an infringement on any patent whatsoever. The Bidder shall protect and save harmless the Owner against suit on account of alleged or actual infringement. The Bidder shall pay all royalties and/or license fees required on account of patented articles or processes, whether or not the patent rights are evidenced hereinafter.

6.0 Uncorrected Faulty Work

Should the correction of faulty or damaged work be considered inadvisable or inexpedient by the Owner or the Engineer, the Owner shall be reimbursed by the Bidder for the same by a deduction in the Purchase Order price. This deduction shall be arrived at by a fair estimate of the probable cost of correction, approved by the Engineer.

7.0 Liquidated Damages

The Bidder shall commence manufacture upon issuance of a Contract from the Owner and shall fully complete delivery as per the Delivery Schedule in the *Form of Proposal*. For each day in excess of the proposed dates, the Bidder shall be made payable to the Owner the sum of five hundred dollars (\$500.00) as Liquidated Damages (and not as a penalty), reasonably estimated in advance to cover the losses to be incurred by the Owner by reason of failure of said Bidder to complete delivery in the time specified, such time being in the essence of this Contract and material consideration thereof.

8.0 Delays and Extension of Time

- 8.1 The time to be allowed for delivery shall be stated on the Bidder's Proposal bound with these Specifications. The Bidder, upon notice of Award of Purchase Order, shall prepare a construction schedule based on the allowed time and submit such schedule to the Engineer for approval.
- 8.2 If Bidder is delayed at any time in the progress of the work by any act of negligence by the Owner or the Engineer or by any separate Bidder employed by the Owner or by changes ordered in the work, the time of completion shall be extended for such reasonable time as the Engineer may decide.
- 8.3 No extension of time for completion will be made for ordinary delays and accidents. Extensions may be granted for delays ordered by the Engineer if the request has been made in writing within forty-eight (48) hours after the order to cease work has been given.

9.0 Guarantee

The Bidder shall guarantee his materials and workmanship against defect due to faulty materials, faulty workmanship, or negligence for a period of one (1) full year from the date of energization and/or eighteen (18) months from the date of delivery, whichever applies. He shall make good such defective materials or workmanship and any damages resulting therefrom without cost to the Owner. Each class of equipment shall carry a full one (1) year warranty against defects from the date of energization.

10.0 Assignments

The Bidder shall not assign any portion of this Contract nor subcontract in its entirety except as fully explained in the *Form of Proposal* and accepted by the Owner. No funds or sums of money due or to become due to the Bidder under this Contract may be assigned.

11.0 Change in Plans and/or Specifications

The Owner, or the Engineer on behalf of the Owner, may make changes to Plans and/or Specifications after award of the Purchase Order or while construction is in progress. The compensation for such changes shall be agreed upon in writing between the Bidder and the Owner prior to commencement of work involving the change. No payment shall be made to the Bidder for correcting work not in compliance with Specifications.

12.0 Insurance

The Bidder shall maintain Workmen's Compensation Insurance and Liability Insurance appropriate for the level of exposure involved in the Purchase Order. The Bidder shall furnish certification of the appropriate insurance.

13.0 Equal Employment Opportunity

During the performance of this work, the Bidder agrees as follows:

- 13.1 The Bidder will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, political affiliation or belief, age, or physical handicap. The Bidder will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to race, color, religion, sex, national origin, political affiliation or belief, age, or physical handicap. Such action shall include but not be limited to the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation and selection for training, including apprenticeship. The Bidder agrees to post in conspicuous places available to employees and applicants for employment notices setting forth the provisions of the nondiscrimination clause.

- 13.2 The Bidder, in all solicitations or advertisements for employees placed by or on behalf of the Bidder, will state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, political affiliation or belief, age, or physical handicap.
- 13.3 The Bidder will send to each labor union or representative of workers with which he has a collective bargaining agreement or other Purchase Order or understanding, a notice advising the labor union or workers' representative of the Bidder's commitments under the Equal Employment Opportunity Section of this Specification and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- 13.4 In the event of the Bidder's noncompliance with the nondiscrimination clauses of this Specification or with any of such rules, regulations, or orders, the Purchase Order may be canceled, terminated, or suspended in whole or in part and the Bidder may be declared ineligible for further Owner contracts.
- 13.5 The Bidder will include the provisions of this section in every Subcontract or Purchase Order unless exempted by rules, regulations, or orders of the Owner, so that such provisions will be binding upon each Subcontractor.

14.0 Indemnification

The Bidder shall hold harmless and indemnify the Owner, its agents, and employees from any and all claims, suits, and proceedings for infringement of any patent or patents covering materials and equipment purchased hereunder. The Bidder shall defend any suit or proceeding brought against Owner, its agents, or employees based upon a claim that the materials and equipment, or any part thereof, constitute an infringement of any patent; or if the Bidder shall fail to defend such suit or proceeding, Owner may do so, and the Bidder shall make reimbursement for the expense of such litigation. If the materials and equipment, or any part thereof, are held to constitute infringement and the use thereof is enjoined, the Bidder shall, at its own expense, either procure for Owner the right to continue to use the materials and equipment, or such part thereof, or shall replace the materials and equipment, or such part thereof, with non-infringing materials and equipment.

TERMS AND CONDITIONS – CITY OF WILSON, NORTH CAROLINA

1. **DEFAULT:** In case of default by the contractor, the City of Wilson may procure the articles or services from other sources and hold the contractor responsible for any excess cost occasioned thereby.
2. **BID BOND/DEPOSIT:** No proposal shall be considered or accepted by the City of Wilson unless, at the time of its filing, the proposal shall be accompanied by a deposit with the City of Wilson of cash, a cashier's check or a certified check on a bank or trust company insured by the Federal Deposit Insurance Corporation in an amount equal to but not less than five percent (5%) of the proposal. In lieu of making the cash deposit, as provided above, bidders may file a Bid Bond executed by a corporate surety licensed under the laws of North Carolina to execute the contract in accordance with the bid bond. This deposit shall be retained by the City of Wilson if the successful bidder fails to execute the contract within ten (10) days after the award or fails to give satisfactory surety as required. Bid bond shall be enclosed in a separate sealed envelope with "Bid Bond" printed on the envelope.
3. **PERFORMANCE AND PAYMENT BONDS:** Performance and Payment Bonds, issued in accordance with Article 3 of Chapter 44A of the General Statutes, each having a penal sum in the full amount of the contract sum, will be required on such contract(s) as may be awarded. This will be required of contractor after award is made.
4. **GOVERNMENTAL RESTRICTIONS:** In the event any Governmental restrictions are imposed which necessitate alternation of the material, quality, workmanship or performance of the items prior to delivery, it shall be the responsibility of the contractor to notify, in writing, the issuing purchasing office at once, indicating the specific regulation, which required such alternations. The City of Wilson reserves the right to accept any such alternations, including any price adjustments occasioned thereby, or to cancel the contract.
5. **AVAILABILITY OF FUNDS:** Any and all payments to the contractor are dependent upon and subject to the availability of funds to the City for the purpose set forth in this agreement.
6. **TAXES:** Any applicable taxes shall be invoiced as a separate item. The City is not exempt from local or North Carolina sales tax.
7. **SITUS AND GOVERNING LAWS:** This Contract is made under and shall be governed and construed in accordance with the laws of the State of North Carolina, without regard to its conflict of laws rules, and within which state all matters, whether sounding in Contract or tort or otherwise, relating to its validity, construction, interpretation and enforcement shall be determined.
8. **PAYMENT TERMS:** Payment terms are Net not later than 30 days after receipt of a correct invoice or acceptance of goods, whichever is later. Invoices are preferred by the City to be sent by e-mail to cowaccts@wilsonnc.org
9. **NON-DISCRIMINATION:**
 - a. The Vendor will take necessary action to comply with all Federal and State requirements concerning fair employment and employment of people with disabilities, and concerning the treatment of all employees without regard to discrimination on the basis of any prohibited grounds as defined by Federal and State law.
 - b. The vendor will take necessary action to ensure its internal employee policies and procedures are consistent with Executive Order #82 (Roy Cooper, December 6, 2018), which extends workplace protections and accommodations to pregnant employees.
10. **CONDITION AND PACKAGING:** Unless otherwise provided by special terms and conditions or specifications, it is understood and agreed that any item offered or shipped has not been sold or used for any purpose and shall be in first class condition. All containers/packaging shall be suitable for handling, storage or shipment.

- 11. INTELLECTUAL PROPERTY WARRANTY AND INDEMNITY:** Vendor shall hold and save the City, its officers, agents and employees, harmless from liability of any kind, including costs and expenses resulting from infringement of the rights of any third party in any copyrighted material, patented or patent-pending invention, article, device or appliance delivered in connection with The Contract.
- 12. TERMINATION FOR CONVENIENCE:** If this contract contemplates deliveries or performance over a period of time, the City may terminate this contract at any time by providing 60 days' notice in writing from the City to the Vendor. In that event, any or all finished or unfinished deliverables prepared by the Vendor under this contract shall, at the option of the City, become its property. If the contract is terminated by the City as provided in this section, the City shall pay for those items for which such option is exercised, less any payment or compensation previously made.
- 13. ADVERTISING:** Vendor agrees not to use the existence of The Contract or the name of the City as part of any commercial advertising or marketing of products or Services. A Vendor may inquire whether the City is willing to act as a reference by providing factual information directly to other prospective customers.
- 14. ACCESS TO PERSONS AND RECORDS:** An independent auditor shall have access to persons and records as a result of all contracts or grants entered into by the City of Wilson in accordance with General Statute 147-64.7.
- 15. ASSIGNMENT:** No assignment of the Vendor's obligations nor the Vendor's right to receive payment hereunder shall be permitted. However, upon written request approved by the issuing purchasing authority and solely as a convenience to the Vendor, the City may:
- a) Forward the Contractor's payment check directly to any person or entity designated by the Contractor, and
 - b) Include any person or entity designated by Vendor as a joint payee on the Contractor's payment check. In no event shall such approval and action obligate the City to anyone other than the contractor and the contractor shall remain responsible for fulfillment of all Contract obligations.
- 16. INSURANCE:** *A copy of Contractors Insurance Certificate is required to be submitted upon award.*

COVERAGE - During the term of the Contract, the Vendor at its sole cost and expense shall provide commercial insurance of such type and with such terms and limits as may be reasonably associated with the Contract. As a minimum, the Vendor shall provide and maintain the following coverage and limits:

a) **Worker's Compensation** - The Vendor shall provide and maintain Worker's Compensation Insurance, as required by the laws of North Carolina, as well as employer's liability coverage with minimum limits of \$500,000.00, covering all of Vendor's employees who are engaged in any work under the Contract in North Carolina. If any work is sub-contracted, the Vendor shall require the sub-Contractor to provide the same coverage for any of his employees engaged in any work under the Contract within the State.

b) **Commercial General Liability** - General Liability Coverage on a Comprehensive Broad Form on an occurrence basis in the minimum amount of \$1,000,000.00 Combined Single Limit. Defense cost shall be in excess of the limit of liability.

c) **Automobile** - Automobile Liability Insurance, to include liability coverage, covering all owned, hired and non-owned vehicles, used within North Carolina in connection with the Contract. The minimum combined single limit shall be \$250,000.00 bodily injury and property damage; \$250,000.00 uninsured/under insured motorist; and \$2,500.00 medical payment.

REQUIREMENTS - Providing and maintaining adequate insurance coverage is a material obligation of the Vendor and is of the essence of The Contract. All such insurance shall meet all laws of the State of North Carolina. Such insurance coverage shall be obtained from companies that are authorized to provide such coverage and that are authorized by the Commissioner of Insurance to do business in North Carolina. The Vendor shall at all times comply with the terms of such insurance policies, and all requirements of the insurer under any such insurance policies, except as they may conflict with existing North Carolina laws or The Contract. The limits of coverage under each insurance policy maintained

by the Vendor shall not be interpreted as limiting the Vendor's liability and obligations under the Contract.

17. **GENERAL INDEMNITY:** The Vendor shall hold and save the City, its officers, agents, and employees, harmless from liability of any kind, including all claims and losses accruing or resulting to any other person, firm, or corporation furnishing or supplying work, Services, materials, or supplies in connection with the performance of The Contract, and from any and all claims and losses accruing or resulting to any person, firm, or corporation that may be injured or damaged by the Vendor in the performance of The Contract and that are attributable to the negligence or intentionally tortious acts of the Vendor provided that the Vendor is notified in writing within 30 days from the date that the City has knowledge of such claims. The Vendor represents and warrants that it shall make no claim of any kind or nature against the City's agents who are involved in the delivery or processing of Vendor deliverables or Services to the City. The representation and warranty in the preceding sentence shall survive the termination or expiration of The Contract.
18. **CONFIDENTIALITY:** Any City information, data, instruments, documents, studies or reports given to or prepared or assembled by or provided to the Vendor under The Contract shall be kept as confidential, used only for the purpose(s) required to perform The Contract and not divulged or made available to any individual or organization without the prior written approval of the City.
19. **COMPLIANCE WITH LAWS:** Vendor shall comply with all laws, ordinances, codes, rules, regulations, and licensing requirements that are applicable to the conduct of its business and its performance in accordance with The Contract, including those of federal, state, and local agencies having jurisdiction and/or authority.
20. **ENTIRE AGREEMENT:** This document and any others incorporated specifically by reference represent the entire agreement between the parties and supersede all prior oral or written statements or agreements. This document, any addenda hereto, and the Vendor's proposal are incorporated herein by reference as though set forth verbatim. All promises, requirements, terms, conditions, provisions, representations, guarantees, and warranties contained herein shall survive the contract expiration or termination date unless specifically provided otherwise herein, or unless superseded by applicable Federal or State statutes of limitation.
21. **AMENDMENTS:** This Contract may be amended only by a written amendment duly executed by the City and the Vendor.
22. **FORCE MAJEURE:** Neither party shall be deemed to be in default of its obligations hereunder if and so long as it is prevented from performing such obligations as a result of events beyond its reasonable control, including without limitation, fire, power failures, any act of war, hostile foreign action, nuclear explosion, riot, strikes or failures or refusals to perform under subcontracts, civil insurrection, earthquake, hurricane, tornado, or other catastrophic natural event or act of God.
23. **SOVEREIGN IMMUNITY:** Notwithstanding any other term or provision in The Contract, nothing herein is intended nor shall be interpreted as waiving any claim or defense based on the principle of sovereign immunity or other state or federal constitutional provision or principle that otherwise would be available to the City under applicable law.
24. **E-VERIFY:** Contractor understands that E-Verify is the federal E-Verify program operated by the United States Department of Homeland Security and other federal agencies, or any successor or equivalent program used to verify the work of authorization of newly hired employees pursuant to federal law in accordance with NCGS 64-25 et seq. Contractor is aware of and in compliance with the requirements of E-Verify and Article 2 of Chapter 64 of the North Carolina General Statutes. To the best of Contractor's knowledge, any subcontractors employed by it as a part of this contract are in compliance with the requirements of E-Verify and Article 2 of Chapter 64 of the North Carolina General Statute.

- 25. IRAN DIVESTMENT ACT CERTIFICATION:** Contractor certifies that, as of the date listed (2017), it is not on the Final Divestment List as created by the State Treasurer pursuant to N.C.G.S. Chapter 147 Article 6E. In compliance with the requirements of the Iran Divestment Act and N.C.G.S. Chapter 147 Article 6E, Contractor shall not utilize in the performance of the contract any subcontractor that is identified on the Final Divestment List.
- 26. EVALUATION OF BID:** All qualified proposals/bids will be evaluated and award made to the firm(s) whose proposal/bid is deemed to be in the best interest of the City of Wilson, all factors considered. The City of Wilson reserves the right to reject any and all offers if determined in its best interest.
- 27. BID/PROPOSAL PUBLIC RECORD:** All proposals/bids received become the property of the City of Wilson and information included therein or attached thereto shall become public record upon their delivery to the city. Submission of a bid/proposal in response to a request constitutes acceptance of all terms and conditions and requirements contained in the request.
- 28. RECOMMENDATION OF AWARD:** The recommendation of award by city council represents a preliminary determination and not a legally binding acceptance of the bid or proposal until the city has executed a written agreement in a form agreeable by an authorized city official.
- 29. COST FOR PROPOSAL PREPARATION:** Any costs incurred by Vendor in preparing or submitting offers are the Vendor's sole responsibility; the City will not reimburse any Vendor for any costs incurred or associated with the preparation of proposals.
- 30. INSPECTION AT VENDOR'S SITE:** The City reserves the right to inspect, at a reasonable time, the equipment, item, plant or other facilities of a prospective Vendor prior to Contract award, and during the Contract term as necessary for the City's determination that such equipment, item, plant or other facilities conform with the specifications/requirements and are adequate and suitable for the proper and effective performance of the Contract.
- 31. PRICE ADJUSTMENTS:** A requested price increase may only become effective after approval of the Purchasing Manager in writing. Price increases will need to have sufficient justification as to the reason why the increase is being requested. The City will need 30 days written notice before price increases can become effective, failure to notify the City of a price increase will result in payment of invoice at prior written contracted/agreed upon pricing until the conditions are met. A price decrease will only need to be communicated to the Purchasing Manager for documentation purposes.
- 32. LIQUIDATED DAMAGES:** Liquidated damages, if stated in the Contract Documents, is an amount reasonably estimated in advance to cover the losses incurred by the Owner by reason of failure on the Contractor to complete the work within the specified time of completion.
- 33. VENDOR REGISTRATION:** All vendors (new, current or potential) must register with our Vendor Registration system through Vendor Registry at the following link.
<https://vrapp.vendorregistry.com/Vendor/Register/Index/city-of-wilson-nc-vendor-registration>

FORM OF PROPOSAL

Terms and Conditions

Bid Schedules

Affidavit of Bidder

Form of Exceptions

North Carolina Bid Bond

Bidder Inserts: Addenda/ Clarifications/ Bulletins

**CITY OF WILSON
WILSON, NORTH CAROLINA**

**SPECIFICATIONS AND BID DOCUMENTS FOR
TWO (2) 115 kV BREAKERS**

FORM OF PROPOSAL

*(Provide **one** original and **one** copy)*

Respectfully submitted this ____ day of _____, 2023

OWNER:	BIDDER: (PLEASE PRINT CLEARLY)
CITY OF WILSON 1800 HERRING AVENUE E WILSON, NC 27893 RICKY WILSON RVWILSON@WILSONNC.ORG PHONE: 252-399-2405	NAME TITLE
	STREET ADDRESS
	CITY/STATE/ZIP
	PHONE:
	FAX:
	E-MAIL:
	SIGNATURE
	SUPPLIER OF PROPOSED EQUIPMENT
MANUFACTURER	
STREET ADDRESS	
CITY / STATE / ZIP	

TERMS AND CONDITIONS

1. The undersigned (hereinafter called the "Bidder") hereby proposes to sell and deliver to the Owner upon the terms and conditions herein stated, the materials, equipment, and services (hereinafter called the "Material") specified in the Bid Schedule(s) attached hereto, and by this reference made a part hereof, for the Materials for the Owner, and:
 - a. These bid documents, which include *Notice to Prospective Bidders*, *Instructions to Bidders*, *General Conditions*, and *Technical Specifications* for the power circuit breaker.
 - b. Manufacturer's Specifications, both as set forth herein and in Manufacturer's literature (two (2) sets) attached hereto or furnished separately as provided for in the *Instructions to Bidders*.
 - c. Legal negotiations with low Bidder only after bids are opened for budgetary compliance.
2. The prices as quoted herein:
 - a. Are firm unless otherwise stated.
 - b. Are FOB to the location(s), as outlined in the *Instructions to Bidders*.
 - c. Do include the cost of delivery to the site at the Bidder's risk, assuming unloading by Others.
 - d. Any tax shall be included as a separate line item per the Bid Schedule.
3. Invoice shall list the appropriate state sales tax as a separate item.
4. The Bidder further declares that he has examined the site of the work and informed himself fully regarding all conditions pertaining to the location where the Material is to be delivered; that he has examined the *Technical Specifications* for the work and bid documents relative thereto; that he has read all special provisions furnished prior to the opening of the bids; and that he has satisfied himself relative to the work to be performed.
5. The Bidder proposes and agrees if the following Bid Schedule(s) in this Proposal is accepted, to contract with the Owner in the form of a Purchase Order specified and to furnish all necessary equipment and Materials, except Materials and equipment specified to be furnished by the Owner, complete in accordance with the bid documents, to the full and entire satisfaction of the Owner, with a definite understanding that no money will be allowed for extra work except as set forth in the *General Conditions*, and as filed on Change Order Forms.
6. The Material prices set forth herein do not include any sums which are or may be payable by the Bidder on account of State Sales Tax upon the sale, purchase, or use of the Material. If any such tax is applicable to the sale, purchase, or use of the Material hereunder, the amount thereof shall be added to the purchase price and paid by the Owner after the Bidder has ascertained the actual sales tax to be included in the Purchase Order price.
7. The Owner reserves the right to accept any schedule, combination of schedules, or any portion of a schedule.
8. A *Form of Exceptions* to the *Technical Specifications*, prepared in accordance with the *Instructions to Bidders*, is attached hereto. The Bidder shall document any exceptions with deviation from the bid documents and Specifications in the *Form of Proposal*. Otherwise, the complete compliance is assumed.
9. Proposals shall include a complete Bill of Materials, identifying each item by catalog number, Manufacturer, ratings, characteristics, types, sizes, etc., of all Materials and equipment required for a complete and coordinated substation. A simple statement that all necessary Materials and equipment will be provided is not acceptable.
10. Title to the Materials shall pass to the Owner upon delivery.
11. The Bidder warrants that the Materials will conform to the performance data and guarantees which are attached hereto and by this reference made a part thereof.

12. The Bidder warrants the accuracy of all statements contained in the Bidder's Qualifications and agrees that the Owner will rely upon such accuracy as a condition of the award of Purchase Order in the event that this Proposal is accepted.
13. By the submission of this bid, the Bidder certifies that:
 - a. The bid has been arrived at by the Bidder independently and has been submitted without collusion with any other Bidder of Materials, supplies, or equipment of the type described in the *Notice to Prospective Bidders* or the *Technical Specifications*, and
 - b. The contents of the bid have not been communicated by the Bidder, nor to its best knowledge and belief by any of its employees or agents, to any person not an employee, agent of the Bidder, or its Surety on any Bond furnished herewith and will not be communicated to any person prior to the official opening of the bid.
14. The Bidder further agrees that in case of failure on his part to accept said Purchase Order within ten (10) consecutive calendar days after written notice has been given of the award of the Purchase Order, the Bid Security accompanying this bid and the monies payable thereon shall be paid into the funds of the Owner account set aside for this project, as Liquidated Damages for such failure; otherwise, the check or cash accompanying the *Form of Proposal* shall be returned to the Bidder.
15. If, in submitting this Proposal, the Bidder has made any change in the *Form of Proposal*, the Bidder understands that the Owner may evaluate the effect of such change as they see fit or they may exclude the Proposal from consideration in determining the issue of Purchase Order.

**CITY OF WILSON
WILSON, NORTH CAROLINA**

TWO (2) 115 kV CIRCUIT BREAKERS

BIDDER'S PROPOSAL

TO: City of Wilson
Wilson, North Carolina

(hereinafter called the "City")

The undersigned (hereinafter called the "Bidder") hereby proposes to sell and deliver to the City, upon the terms and conditions herein stated, the materials and equipment (hereinafter called the "Material") specified in the following schedule or schedules attached hereto and by this reference made a part hereof (hereinafter called the "Schedules") in accordance with the Bid Schedule and:

1. Specifications for two (2) 115 kV Circuit Breakers.
2. Instructions to Bidders.
3. Manufacturer's Specifications both as set forth herein and in manufacturer's literature (two (2) sets) attached hereto or furnished separately as provided for in the "Instructions to Bidders."
4. Legal negotiations, with low bidder only, after bids are opened, for budgetary compliance.

The prices quoted herein:

1. Are firm unless otherwise stated.
2. Are FOB at the POD 13 site in Wilson, North Carolina, as outlined in the Instructions to Bidders.
3. Do not include any tax from which a municipality in North Carolina is exempt (Federal Excise Tax only).
4. North Carolina sales tax is not included in the bid amount.
5. Include the services of the Manufacturer's Field Service Engineer for one (1) day per breaker.

The Bidder further declares that he has examined the site of the work and informed himself fully regarding all conditions pertaining to the location where the work is to be done; that he has examined the Specifications for the work and the Purchase Order Documents relative thereto and has read all special provisions furnished prior to the opening of the bids; and that he has satisfied himself relative to the work to be performed.

The Bidder proposes and agrees that if the following schedule or schedules of this Proposal is accepted, to contract with the City of Wilson, in the form of contract specified, to furnish all necessary materials and equipment, except materials and equipment specified to be furnished by others, complete and in accordance with the Plans, Specifications, and Purchase Order Documents, to the full and entire satisfaction of the City, with a definite understanding that no money will be allowed for extra work except as set forth in the General Conditions and Purchase Order Documents, and as filed on Change Order Forms.

BID SCHEDULE

TWO (2) 115 kV CIRCUIT BREAKERS

BID SCHEDULE NO. 1 – Base Bid – Two (2) 115 KV Circuit Breakers

<u>Description</u>	<u>Quantity</u>	<u>Unit Price</u>
Power Circuit Breakers rated 115 kV nominal, 123 kV maximum, 2000 amperes continuous current carrying capacity at 60 Hertz with a minimum of 40,000 amperes symmetrical interrupting rating, 550 kV BIL furnished with 1200:5 ratio current transformers, all as per Specifications or 125 VDC will be specified at time of order.	2	\$ _____
Delivery Charge	2	\$ _____
Sales Tax (if applicable)	2	\$ _____
BASE BID:		\$ _____

Manufacturer _____ Type _____

BID SCHEDULE NO. 1 – Delivery Schedule
Instructions to Bidders, 5. Delivery of Equipment

The prices of the materials and equipment set forth herein shall include the cost of delivery to the site at the Bidder's risk. The date of delivery shall be in compliance with Section 6.1 of the technical specifications. **Target delivery date is November 30, 2024.**

<u>Delivery (Days)*</u>
Approval Drawings** _____
Final Drawings _____
Delivery of Material _____

- * Number of consecutive calendar days after receipt of written order from the Owner.
- ** Allow two (2) weeks for receipt and return of Approval Drawings.

BID SCHEDULE NO. 1 – Field Service Engineering (Per Day Rate)

Per Day Rate (including expenses) for field service engineering including all necessary Testing Supplies. \$ _____/Day

1. The prices of Materials set forth herein do not include any sums which are or may be payable by the Bidder on account of North Carolina sales tax upon the sale, purchase, or use of the Materials hereunder. The amount thereof shall be added to the purchase price and paid by the City after the Bidder has ascertained the actual sales tax to be included.
2. The Materials will conform to the "Specifications for 115 kV Circuit Breakers" attached hereto and made a part hereof.
3. The City may accept any Schedule or portion thereof.
4. Price Policy: The prices quoted in the Proposal shall be firm unless otherwise stated.
5. The prices quoted shall include delivery of the materials and equipment by open-top truck FOB point of delivery, Wilson, North Carolina, assuming unloading by the City.

The time for delivery shall be extended for the period of any reasonable delay due exclusively to causes beyond the control and without fault of the Bidder, including acts of God, fires, floods, strikes, and delays in transportation.

Delivery of all items of equipment to the City's designated delivery point shall be made to permit unloading between the hours of 9:00 a.m. and 3:00 p.m., Monday through Friday, holidays excluded.

6. Receipt of Approval Drawings by the Bidder constitutes authorization for manufacture predicated upon the Drawings and corrections found thereon. After the return of Approval Drawings, release for shipment is to be granted by either the City or its Engineer based upon the manufacturer's compliance with the following:
 - a. Notification of tests so the City may have a representative present to witness the tests.
 - b. Furnishing of the requested number of copies of the Final Drawings as called for in the Specifications.
 - c. Coordination of manufacturing and delivery with the City's construction schedule as may be noted in these Specifications.
 - d. Thirty days' (30) notification of tentative shipping schedule and forty-eight (48) hours' notification prior to all deliveries.
7. Title to the materials and equipment shall pass to the City upon delivery to the point specified herein.
8. This Proposal is made pursuant to the provisions of the Notice and Instructions to Bidders and the Specifications, and the Bidder agrees to the terms and conditions thereof.
9. The Bidder warrants the accuracy of all statements contained in the Bidder's qualifications, if any shall be submitted, and agrees that the City shall rely upon such accuracy as a condition of the Purchase Order in the event that this Proposal is accepted.
10. The Bidder warrants that the Materials will conform to the performance data and guarantees which are attached hereto and by this reference made a part hereof.
11. A Form of Exceptions to the Specifications, prepared in accordance with the Instructions to Bidders, is attached hereto:
12. Non-Collusive Bidding Certification - By the submission of this bid, the Bidder certifies that:
 - a. The bid has been arrived at by the Bidder independently and has been submitted without collusion with any other Bidder of materials, supplies, or equipment of the type described in the Notice to Prospective Bidders or the Specifications.
 - b. The contents of the bid have not been communicated by the Bidder or, to his best knowledge and belief, by any of his employees or agents to any person not an employee or agent of the

Bidder or his Surety on any Bond furnished herewith and will not be communicated to any person prior to the official opening of the bid.

13. The undersigned further agrees that in case of failure on his part to accept said Purchase Order within ten (10) consecutive calendar days after written notice has been given of the award of the Purchase Order, the check, cash, or Bid Bond accompanying this bid and the monies payable thereon, shall be paid into the funds of the City account set aside for this project as liquidated damages for such failure; otherwise, the check, cash, or Bid Bond accompanying the Proposal shall be returned to the Undersigned.
14. If, in submitting this Proposal, the Bidder has made any change in the Bidder's Proposal, the Bidder understands that the City may evaluate the effect of such change as it sees fit or may exclude the Proposal from consideration in determining the award of the Purchase Order.

Respectfully submitted this _____ day of _____, 2023.

Name of Firm

By:

Title

Address of Bidder: _____

Manufacturer of Proposed Equipment: _____

Other Utilities Purchasing
Recent Units of Similar Design _____

AFFIDAVIT OF BIDDER

The final payment of retained amount due the Bidder on account of the Purchase Order shall not become due until the Bidder has furnished to the Owner through the Engineer an affidavit signed, sworn, and notarized to the effect that all payments for Material, services, or any other reason in connection with this Purchase Order have been satisfied and that no claims or liens exist against the Bidder in connection with this Purchase Order. In the event that the Bidder cannot obtain similar affidavits from Subcontractors to protect the Bidder and the Owner from possible liens or claims against the Subcontractor, the Bidder shall state in his affidavit that no claims or liens exist against any Subcontractor, and if any liens or claims appear afterward, the Bidder shall save the Owner harmless on account thereof.

Bidder: _____

By: _____

Date: _____

INSTRUCTIONS FOR CERTIFICATION

1. By signing and submitting this proposal, the prospective lower-tier participant is providing the certification set out below.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
3. The prospective lower tier participant shall provide immediate written notice to the person to whom this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or had become erroneous by reason of changed circumstances.
4. The terms covered transaction, debarred, suspended, ineligible, lower tier covered transaction, participant, person, primary covered transaction, principal, proposal, and voluntarily excluded, as used in this clause, have the meaning set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transactions with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the List of Parties Excluded from Federal Procurement and Nonprocurement Programs.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

DEBARMENT CERTIFICATION

- (1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Bidder

PR/Award or Project Name

Name and Title

Signature

Date

LOBBYING CERTIFICATION

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Bidder PR/Award or Project Name

Name and Title

Signature Date

FORM OF EXCEPTIONS

BIDDER: _____

OWNER: CITY OF WILSON
CITY OF WILSON, NORTH CAROLINA

PROJECT DESCRIPTION: TWO (2) 115 kV CIRCUIT BREAKERS

Project: _____

INSTRUCTIONS: The following is a list of exceptions to the Bidding Documents and/or Technical Specifications pertaining to the furnishing of the subject materials. Bidders shall identify each exception by Specification page and paragraph number on this form. The omission of exception implies complete compliance with Plans and Specifications.

<u>BID DOCUMENT/ SPECIFICATION PAGE NO. AND PARAGRAPH</u>	<u>EXCEPTION/VARIATION</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

ADDENDA / CLARIFICATIONS / BULLETINS

Instructions to Bidders, 5.0 Bulletins and Addenda

NORTH CAROLINA BID BOND

KNOW ALL MEN BY THESE PRESENT, THAT WE _____

_____ as Principal,

and _____ as Surety, who is duly licensed to act as Surety in North Carolina, are held and firmly bound unto the City of Wilson of Wilson, North Carolina, as Obligee, in the penal sum of

_____ DOLLARS

(\$ _____) five percent (5%) Bid Bond, lawful money of the United States of America, for the payment of which, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these present.

SIGNED, Sealed and dated this _____ day of _____, 2023.

WHEREAS, the said Principal is herewith submitting Proposals for

TWO (2) 115 kV CIRCUIT BREAKERS

and the Principal desires to file this Bid Bond in lieu of making the cash deposit as required by the bidding documents contained herein;

NOW, THEREFORE, THE CONDITION OF THE ABOVE OBLIGATION is such that if the Principal shall be awarded the Purchase Order for which the bid is submitted and shall accept the Purchase Order within ten (10) days after the award of same to the Principal, then this obligation shall be null and void; but if the Principal fails to so accept such Purchase Order as required by the bidding documents contained herein, the Surety shall, upon demand, forthwith pay to the Obligee the amount set forth in the first paragraph hereof, and upon failure to forthwith make such payment, the Surety shall pay the Obligee an amount equal to double the amount of this Bid Bond as set forth in the first paragraph hereof. Power of Attorney from the Surety to its Attorney-in-Fact is attached hereto.

Principal

By _____ (SEAL)

Corporate Surety

By _____ (SEAL)

TECHNICAL SPECIFICATIONS

**CITY OF WILSON
WILSON, NORTH CAROLINA**

TWO (2) 115 kV CIRCUIT BREAKERS

TECHNICAL SPECIFICATIONS

1.0 Scope of Work

- 1.1 The Owner is procuring two (2) circuit breaker(s). Bids will be received on one (1) schedule(s) for the purchase of two (2) 115 kV, 2000 A power circuit breaker(s) to be operated at 115 kV.
- 1.2 The Bidder's work shall include furnishing the circuit breaker(s) so represented in these *Technical Specifications*, and as set forth in the Bid Schedule(s) and attached Data Sheet. The Owner reserves the right to select any combination of alternate schedules as may be allowed. The Owner also reserves the right to reject any or all bids.

2.0 General Conditions

- 2.1 All materials and equipment shall be new and shall be manufactured in the United States or Mexico. Manufacturers must be approved by the Owner and Engineer.
- 2.2 These Specifications and the attached Data Sheet describe the type, size, and characteristics of the various materials and equipment required to be furnished.
- 2.3 Strict adherence to these general Specifications is requested to facilitate checking and consideration of the Proposal.
- 2.4 It is the intent of these Specifications that the breaker(s) shall be complete and fully operable. Any details not mentioned in the Specifications but required for satisfactory operation shall be furnished and installed by the Bidder.
- 2.5 Station power and control DC voltage at the substation will be located on the attached Data Sheet. The equipment on the breaker(s) shall coordinate with these voltages as appropriate.
- 2.6 Where a Manufacturer's name and type of equipment are indicated in these Specifications, it is for clarity and the establishment of a standard and is not restrictive.
- 2.7 The power circuit breaker(s) shall be suitable for outdoor operation and shall be a dead tank, three-pole, single throw. The breaker(s) shall consist of an outdoor dead tank, frame-mounted power circuit breaker(s) having a weatherproof mechanism, and a relay cabinet with a hinged panel containing the control wiring. Breaker(s) shall meet all its ratings as defined in IEEE C37.04, latest edition, and as listed in IEEE C37.06, latest edition.

3.0 Special Conditions

3.1 Defective Materials, Equipment, and Workmanship

- 3.1.1 All materials and equipment furnished hereunder shall be subject to the inspection, tests, and approval of the Owner; and the Bidder shall furnish all information required concerning the nature or source of any materials and equipment and provide adequate facilities for testing and inspecting the materials and equipment at the plant of the Bidder.
- 3.1.2 The materials and equipment furnished hereunder shall become the property of the Owner when delivered at the point to which shipment is to be made; provided, however, that the Owner may reject any such materials and equipment which does not comply with the Specifications for materials and equipment and/or warranties of the Bidder and manufacturers. Recognition and subsequent rejection of any defective materials and equipment may occur either before or after incorporation of such materials and equipment into the facilities, provided such rejection is made

within one (1) year of date of delivery of the materials and equipment. Upon any such rejection, the Bidder shall replace the rejected materials and equipment with materials and equipment complying with the Specifications for materials and equipment and warranties FOB truck at suitable destination. The Owner shall return the rejected materials FOB truck at the same destination. In the event of the failure of the Bidder to so replace rejected materials and equipment, the Owner may make such replacement; and the cost and expense thereof shall be paid by and recoverable from the Bidder.

- 3.1.3 The breaker(s) to be provided herein shall include a full warranty on the complete units together with all parts. The Bidder shall state in the proposal the length of the manufacturer's standard warranty and also additional cost (if any) to provide a warranty of five (5) years from the date of initial energization and up to sixty-eight (68) months from date of delivery.

4.0 Standards

- 4.1 All equipment and materials covered by these Specifications shall be in accordance with the applicable provisions of the latest editions of the Standards of the ASTM, ANSI, NEMA, IEEE, OSHA, and the latest revision of the NESC. Where a Manufacturer's name and type of equipment are indicated in the Specifications, it is for clarity and the establishment of a standard and is not restrictive unless the use of an approved equal is specifically mentioned.
- 4.2 The Bidder may offer alternate pricing for equivalent items by other Manufacturers. However, **all** base bids must explicitly comply with the designated materials specified herein. The Owner may elect to purchase alternates, as proposed by the Bidder. The alternate materials are subject to review and approval by the Owner's Engineer.

5.0 Drawings and Instruction Books

5.1 Preliminary Drawings

Before proceeding with fabrication, the Manufacturer shall submit for approval to the Owner sufficient Drawings to demonstrate that all parts conform to the requirements and intent of these Specifications. The Drawings shall include Breaker(s), Operator, and Current Transformer (CT) Nameplates, Breaker(s) and Bushing Outlines, Elementary and Connection (Control Wiring) Diagrams, and CT Secondary Exciting Curves and Ratio Correction Factor Curves. The Drawings shall be submitted electronically to the contact listed on the attached Data Sheet. The Drawings shall be compatible with AutoCAD® 2018. If the Bidder elects to submit paper copies in lieu of electronic copies, they shall submit four (4) copies of each Drawing. All Drawings submitted shall be a minimum of a "D" (24 inches x 36 inches) size print. Submittal of Drawings smaller than "D" size will be immediately returned stamped "not approved" and proper size Drawing will have to be submitted. All Drawings shall be dimensioned in feet and inches; metric measurements alone will not be acceptable. However, dual dimensioning in feet and inches, and centimeters will be acceptable.

5.2 Approval Drawings

Receipt of Approval Drawings by the Bidder constitutes an authorization for manufacture predicated upon the Drawings and corrections found thereon.

5.3 Design and Fabrication Drawings

- 5.3.1 The Outline Drawing shall show the dimensions of the equipment including bushings, base anchor dimensions, conduit entrance panel location, and all other important external features. These Drawings shall show weights, vertical and horizontal dimensions, bushing catalog numbers and ampere ratings, description of top bushing terminals, and arrangement of all external accessory devices, as well as the complete breaker ratings. Cut sheets and catalog descriptive bulletins

shall be submitted for any components of the breaker(s), along with the Drawings for review.

- 5.3.2 Approval of Drawings shall not be held to relieve the Bidder of obligations to meet all requirements to the Specifications, of responsibility for correctness of the Drawings, or of responsibility to meet original shipping promise on the basis of the Owner being allowed two (2) weeks for approval.
- 5.3.3 The Owner or its Engineer may require a second submittal of Shop Drawings if, in the opinion of the Owner or its Engineer, such is required due to the extent of changes required on the first submittal. If an extension of time is required due to a protracted Drawing approval process, the price will remain as quoted for the quoted delivery.
- 5.3.4 All Drawings shall have marked on each sheet or group of sheets, which always remain together, a label that shall match the "Drawing Stamp" on the attached Data Sheet.
- 5.3.5 The Manufacturer shall submit with the preliminary Drawings all information needed to design an adequate foundation for the breaker(s), including the exact positioning and size of anchor bolts.

5.4 Final Drawings

Contingent upon Approval Drawing review and product manufacture, the Bidder shall issue final documentation as follows:

- 5.4.1 One (1) complete set of all Drawings revised to "as-built" status, released on paper media.
- 5.4.2 Two (2) complete sets of all Drawings, revised to "as-built" status, released on two (2) separate USBs, compatible with AutoCAD® 2018. Product manuals, leaflets, CT curves, etc. shall be provided on the same USB (if there is room) in Adobe (pdf) format. USBs shall contain pdf copies of certified test reports as well.
- 5.4.3 Two (2) copies of applicable instruction books, including one (1) print each of all Drawings representing physical and electric details.
- 5.4.4 Two (2) copies of certified test reports corresponding to functional performance measurements after final assembly.
- 5.4.5 All Drawings are to be certified correct and supplied within a reasonable length of time prior to shipment of the equipment. Each set of Drawings and documentation shall include the following information:
 - 1. Outline and Assembly Drawings showing the size and location of major components and all principal dimensions.
 - 2. Control and relay panel front view.
 - 3. Details of bushing and bushing terminal connectors.
 - 4. Diagram of bushing current transformers, connection, number of turns, polarity marking, ratios, and bushing orientation.
 - 5. Current transformer performance characteristic curves and data for all relay accuracy CTs.
 - 6. Details of the control cabinet.
 - 7. Panel connection diagram showing the exact connection for all components furnished.
 - 8. AC and DC elementary circuit diagrams for all relay and control equipment furnished.

9. Wiring control and schematic diagrams.
10. Instruction books.
11. Renewal parts catalog.

5.4.6 All Drawings and documentation are to be forwarded to Booth & Associates, LLC, 2300 Rexwoods Drive, Suite 300, Raleigh, North Carolina 27607, to the attention of the contact on the attached Data Sheet.

6.0 Manufacturer's Field Representative

The manufacturer shall provide the services of a Field Service Engineer to assist the Owner with pre-service inspection and assembly of the two (2) power circuit breakers. One (1) day per breaker shall be included in the base price.

Services provided by the Field Engineer shall include all pre-service inspection procedures outlined in the manufacturer's literature. The Field Service Engineer may also be required by the Owner to perform a series of tests including high potential testing of interrupters, breaker mechanism travel, synchronization of group operation, current transformer ratio tests, and current polarity tests.

7.0 Power Circuit Breaker(s)

7.1 Ratings

- 7.1.1 Breaker(s) shall meet all its ratings as defined in ANSI/IEEE C37.04, latest edition, and as listed in ANSI C37.06, latest edition. The power circuit breaker(s) shall be rated as per the attached Data Sheet.
- 7.1.2 The breaker(s) shall be designed to withstand seismic events for the applicable seismic zone according to IEEE 693 *Recommended Practice for Seismic Design of Substations* to the extent that a force applied in the direction of least resistance to that loading will not cause the breaker(s) tank(s), cover, frame, bushings, control cabinet, contact assembly, or fastenings to be overstressed.
- 7.1.3 The breaker(s) shall be suitable for operation at an ambient temperature of -30°C (22°F). The maximum ambient temperature rating shall be 50°C (122°F). The humidity rating shall be up to 100%.
- 7.1.4 The breaker(s) will be installed at an altitude as shown on the attached Data Sheet.
- 7.1.5 The breaker(s) shall be designed to withstand wind loading of 90 mph, with 120 mph gusts and ice loading up to 0.75 inches.
- 7.1.6 The completely assembled breaker(s), including bushings, current transformers, and all other appurtenances shall be designed and tested to withstand voltages in accordance with ANSI/IEEE C37.06, Table 4, latest edition, and as shown in the attached Data Sheet. The breaker(s) shall be able to withstand tabulated values without puncture or flashover with contacts either closed or fully open.
- 7.1.7 The breaker(s) shall have standard interrupting capacities as listed in the attached Data Sheet for each schedule.
- 7.1.8 The breaker(s) shall interrupt the arc within three (3) cycles or less measured from the instant the trip coil is energized with normal voltage. Three (3) cycles or less interruption shall be achieved over a range of 25% to 100% of rated interrupting capacity.
- 7.1.9 The breaker(s) shall be capable of interrupting the full-rated fault current at least twice in succession without intentional delay (open – close – open).

7.2 Details

- 7.2.1 The insulation structure of the breaker(s) shall meet the requirements of Section 6 of ANSI C37.12, the latest revision.

- 7.2.2 The structural features of the breaker(s) shall meet the requirements of Section 8 of ANSI C37.12, the latest revision, including the rated short-circuit current and seismic events as described in these Specifications.
- 7.2.3 Original and renewal parts shall be so manufactured that they can be assembled in the field without undo fitting.
- 7.2.4 The main breaker contacts shall be designed to have adequate thermal and current-carrying capacity for carrying full-rated current without exceeding the allowable temperature rise as specified in ANSI C37. They shall be designed to have a long life so frequent replacement or maintenance will be unnecessary. The surfaces of either or both moving and stationary arcing contacts which are exposed directly to the arc shall be faced with suitable arc-resisting material.
- 7.2.5 All surfaces of steel parts (framework, tank, etc.) shall be cleaned in accordance with the Bidder's standards to remove dirt, scale, and grease prior to painting or galvanizing. This shall be immediately followed by an application of priming of rust-inhibitive paint and the necessary base coat or the galvanization process. All steel surfaces shall have a minimum of 3 millimeters of paint or hot-dipped galvanized.
- 7.2.6 The exterior surfaces of all bolts, nuts, and washers shall be primed and painted as above, or such parts shall be stainless steel or galvanized. No exposed cadmium-plated parts or zinc chromate-plated parts will be allowed.
- 7.2.7 Color Specification shall be ANSI #70 light gray.
- 7.2.8 There shall be viewing windows for the annunciator, open/close mechanism, and anything else determined by the breaker(s) Manufacturer. All viewing windows for viewing gauges, relays, and indicators shall be Lexan.
- 7.2.9 One (1) painted or galvanized, welded steel supporting framework with two (2) ground terminals for bonding. The connections are to be located on diagonally opposite corners at the bottom of the frame with NEMA 2-hole (1¼-inch spacing) and mounted with ½ inch 13 NC thread bolts.
- 7.2.10 Bidder shall provide six (6) bushings or enclosures, standard creepage, with external terminals including flat spade connections with NEMA 4-hole drilling either built-in or furnished separately. The bushings shall be rated to match the full capacity of the breaker(s). The terminal connectors shall be rated for the bushing continuous current capacity.
- 7.2.11 Bushings or enclosures shall be light gray, constructed of high-strength wet-process porcelain, and rated at circuit breaker(s) Full-Wave withstand BIL.
- 7.2.12 All metal cabinets attached to the breaker(s) shall be solidly grounded to the frame of the breaker(s).
- 7.2.13 The circuit breaker(s) shall be completely assembled, wired, adjusted, and tested at the factory before shipment.
- 7.2.14 The breaker(s) shall be designed so that no gas-handling service trailer or gas-recovery facilities are required, and so that no SF₆ seals will have to be made in the field. However, it shall be permissible for the breaker(s) to be brought up to final pressure in the field by use of a gas cylinder furnished by the Bidder.

7.3 Operating Mechanisms

- 7.3.1 The operating mechanism shall consist of a high-speed, electrically trip-free, and mechanically trip-free magnetic or charged spring-operated device. The mechanism shall operate to open the three (3) phases of the breaker(s)

simultaneously. The operating mechanism shall not permit tripping from any position except fully closed. In the event that any pole of the breaker(s) fails to close, the mechanism shall operate to trip all poles.

- 7.3.2 The stored energy mechanism shall be capable of at least one (1) open-close-open operation without recharging. The time for the motor to recharge the mechanism shall not exceed ten (10) seconds. The charging motor shall not draw more than 20 amperes during the charging operation.
- 7.3.3 The breaker(s) shall be equipped for DC tripping and closing. Two (2) separate and independent trip coils (or set of coils) shall be furnished so the breaker(s) can be tripped independently from two (2) separate and independent relaying sources. The trip coils and all necessary circuits, including pressure switches and reset devices, shall be provided on the mechanism. The tripping current shall not exceed 20 amperes.
- 7.3.4 Each tripping circuit shall operate satisfactorily over a voltage range of 60% to 115% of nominal DC voltage. Where more than one (1) trip coil is furnished on each trip for primary relaying and/or backup relaying, the trip coils associated with the same tripping circuit shall be series connected. A parallel connection is not acceptable.
- 7.3.5 Operating mechanism auxiliary switches of the rotary type shall be mechanically coupled to the mechanism providing a positive indication of the position of the main contacts of the breaker(s). Each operating mechanism shall be equipped with a 20-stage auxiliary switch with ten (10) "a" and ten (10) "b" contacts for customer use only in addition to those normally required for breaker(s) operation and light indication functions. All spare auxiliary switch contacts and unused contacts on control devices shall be wired to terminal blocks in the control cabinet, even if the contacts are not used.
- 7.3.6 A Veeder-Root type operation counter, visible from the outside of mechanism housing shall be provided.
- 7.3.7 Emergency trip control, mechanically linked to the mechanism trip latch shall be provided. The manual trip lever shall be externally accessible to operating personnel and upon operation, shall set an interlock (69) to block electrical closing. The interlock shall be manual reset only.
- 7.3.8 Mounting facilities for the application of a time travel device and instructions for timing of the breaker(s) shall be furnished with the breaker(s).

7.4 Gas Insulation and Interruption Systems

- 7.4.1 The breaker(s), if closed, shall remain closed and locked and provide an alarm if the air or gas pressure should decrease to the point where the breaker(s) is not capable of a successful operation at rated interrupting capabilities. If open, the breaker(s) shall lock open and provide an alarm. The detection schemes for these air and/or gas pressure conditions shall be fail-safe. Each trip coil shall have independent pressure sensing and relaying to provide the stated features.
- 7.4.2 The breaker(s) shall be provided with a means of maintaining the appropriate dryness and pressure of the dielectric gas.
- 7.4.3 A gas pressure manifold valve assembly shall be provided and shall be easily accessible for routine maintenance checks.
- 7.4.4 Air and gas valves and connections shall be furnished to permit unit servicing as far as practical. The Bidder shall verify with the customer before construction.

- 7.4.5 All tubing used for SF₆ gas-pressure monitoring and for air pressure from the air compressor discharge outlet to the rest of the air system shall be stainless steel. Copper tubing is not acceptable.
- 7.4.6 "Twist-Lock" three-wire outlet rated 50 amperes, 240 volts AC shall be provided for connection of the Owner's gas cart.
- 7.4.7 The gas insulation system shall be provided with a temperature-compensated, gas-monitoring system that provides an alarm circuit, a command signal, and a blocking signal. Each device using SF₆ gas under pressure for insulating purposes shall be equipped with dial-type pressure and temperature gauges. Provisions shall be made for remote alarm indication. For breaker(s) pole unit interconnected devices, a centrally located gauge and alarm device shall be provided. The location shall be subject to Owner's approval.

7.5 Mechanism Housing and Cabinet

- 7.5.1 The mechanism housing and cabinet shall be furnished and mounted on the breaker(s) frame. The centerline of the mechanism housing shall not exceed 60 inches above grade level.
- 7.5.2 The mechanism housing, cabinet, and cabinet door(s) shall be weatherproof and fabricated of sheet metal of sufficient thickness to prevent warping or buckling. The cabinet door(s) shall be vertically hinged and arranged to permit ready access to the inside of the cabinet housing. A continuous stainless-steel hinge shall be used on cabinet door(s) or sufficient reinforcement of cabinet door(s) must be provided to prevent warping and buckling of the door hinge side. The door shall have a cabinet-type 3-point latching device with a locking device in the closed position and shall include provisions for attaching a padlock with a 3/8-inch shackle diameter to the locking device. All doors shall open wide (135°), giving full access to the interiors. The mechanism housing may be in a separate compartment with bolted covers, which can be removed and replaced without undue difficulty.
- 7.5.3 The cabinet shall be provided with a removable plate at the bottom for conduit entrances (to be drilled by others).
- 7.5.4 One (1) or more 240-volt AC heaters for continuous operation shall be furnished to prevent moisture condensation in the cabinet and housing. Additional heaters with thermostatic control shall be provided to maintain normal operation of the cabinet and housing at air temperature to -30°C (-22°F). All heaters shall be equipped with guards, and the 240-volt electric terminals of the heaters shall also be covered.
- 7.5.5 A holder shall be furnished and mounted on the inside of the cabinet to store the Final Drawings and instruction book.
- 7.5.6 Convenience 120-volt GFCI receptacles and lamps shall be provided in the main cabinets, complete with fuses or equivalent. Light shall have door switch and shall be protected by a guard.
- 7.5.7 The control panel shall be dead front with all switches, breaker(s), etc., enclosed.

7.6 Wiring

- 7.6.1 All power wiring shall be made with #10 AWG tinned copper wire or larger-sized wire. The primary insulation jacket of all wiring shall be 600 volts, 90°C, and water, oil, and flame resistant. Control wiring shall be 41- or 65-stranded cable, Type SIS, and not smaller in size than #14 AWG tinned copper wire, with the exception that wiring to alarm auxiliary relays and indicating lights may be smaller in size. All current transformer leads are to be #10 AWG tinned copper or larger in size.
- a. Power wiring shall be sized as required in accordance with the National Electrical Code.
 - b. All wires shall be identified at each end with legible permanent labels depicting the termination location at the opposite end.
 - c. Wiring connections between fixed and hinged sections shall be a minimum 41-strand, flexible wire. Seven-stranded control wire is not acceptable.
 - d. All terminal connections for conductor sizes #10 AWG and smaller shall be made with pre-insulated, full ring tongue, crimp-type lugs. Lugs shall be AMP, Inc. "Pre-Insulated Diamond-Grip" (PIDG) with nylon sleeves. Spade-type terminals or slip-on connectors are not acceptable.
 - e. For Phoenix-type terminals, all wiring shall be connected using a pre-insulated, closed barrel. For blade-type terminals, bare, stranded wire shall not be inserted into Phoenix terminals.
 - f. All terminal connections for conductors sized #2 AWG through #9 AWG shall be made with Burndy Insulug Type YAEV.
 - g. All terminal connections for conductor sizes larger than #2 AWG shall be made with two-hole, long-barrel, double-indent crimp-type lugs: Burndy Hylug Type YA. (Single-hole lugs may be used only where necessary.)
 - h. High-temperature insulated wire shall be used for connections to heaters.
- 7.6.2 Grommets shall be provided for all openings in metal barriers used for wiring.
- 7.6.3 Uninsulated exposed conductor or terminal lug shall not extend beyond the sides of the terminal block or its insulating barriers.
- 7.6.4 All leads for multi-ratio current transformers shall be wired to shorting-type terminal blocks in the control cabinet. If junction boxes are required in the wiring between the current transformer and control cabinet, terminal blocks or splicing sleeves shall be used for wiring connections. In-line type disconnecting terminals such as American Petroleum Institute (API) No. 32448 or Burndy No. YZ10 will not be acceptable.
- 7.6.5 All current transformer shorting blocks shall have the sixth position grounded and bonded to the shorting rail.
- 7.6.6 If accidental short-circuiting of certain wires can result in malfunction of equipment such as closing or tripping of the breaker(s), these wires shall not be terminated on adjacent terminal block points.
- 7.6.7 All wiring shall be neat and orderly.
- 7.6.8 The close circuit shall be wired out to two (2) terminal block points to provide external blocking of any close function with contact from the substation lockout relay. These two (2) points shall have a field removable jumper.
- 7.6.9 Each trip circuit shall be wired out to two (2) terminal block points to provide external tripping from the substation lockout relay.

- 7.6.10 No more than two (2) wires per terminal point are permissible.
- 7.6.11 The breaker(s) shall be equipped with a ground bar. All components including, but not limited to, CT shorting blocks, case, door, back panel, and AC receptacles shall be bonded to the ground bus bar.

7.7 Terminal Blocks and Fuseholders

- 7.7.1 Molded-type terminal blocks, rated 600 volts and 30 amperes, for all control connections shall be provided. Terminal blocks with self-contained pressure-type connectors are not acceptable.
- 7.7.2 General Electric Type EB-25 or Marathon Type 1500 STD terminal blocks shall be provided furnished with white marking strips for identification of terminal wires for all connections except the current transformer. Modular assembly-style terminal blocks are not acceptable.
- 7.7.3 For current transformer leads, General Electric Type EB-27 or Marathon Type 1506SC shorting terminal blocks shall be provided.
- 7.7.4 Each block shall be equipped with at least two (2) shorting screws. A separate shorting-type terminal block shall be provided for each set of current transformer leads.
- 7.7.5 General Electric Type EB-1 or Marathon Catalog No. 1422123 power terminal blocks shall be provided for landing of the Owner's single-phase, three-wire, 240/120-volt AC control power leads and DC control power leads.
- 7.7.6 A minimum of 15% spare (but not less than twelve [12] points) terminal points shall be provided in the mechanism housing and cabinet. These terminal points shall be furnished with all connection hardware.
- 7.7.7 A single-throw disconnect switch shall be installed on all fuse holders or incorporated into the fuse holder itself. If separate fuse holders are to be utilized, then fuse holders shall be Marathon RF30AXS (X = 2 for 2 poles, 3 for 3 poles, etc.) series fuse blocks with hard-gripping fuse clips (reinforcing member) and straight-slotted silicon bronze screws on each terminal, or approved equivalent.

7.8 Current Transformers

- 7.8.1 Current transformers shall be considered part of the breaker(s) and shall be coordinated with the breaker(s) to meet all currents, voltages, and mechanical requirements of the breaker(s) for steady state, surge, and fault conditions.
- 7.8.2 Single and/or multi-ratio bushing-type current transformers with accuracy as stated on attached Data Sheet suitable for relay and indicating instrument application, all wired to shorting terminal blocks in the mechanism and relay cabinet. The current transformer leads are to be permanently connected and properly identified to the shorting terminal blocks in the control cabinet. Each CT shall be wired to a separate terminal block; sharing of terminal blocks by different CTs shall not be allowed. Taps shall be provided in accordance with Table 11 of IEEE C57.13-2016.
- 7.8.3 The current transformers shall be furnished as per the attached Data Sheet.

7.9 Nameplates

- 7.9.1 Nameplates and their mounting screws shall be of noncorrosive metal and mounted in positions where they can be safely and easily read with the equipment in service.
- 7.9.2 Nameplates for the breaker(s) shall include as a minimum the information required by ANSI C37.

- 7.9.3 Nameplates for current transformers which are mounted remotely from the breaker(s) shall be mounted on the current transformer's secondary housing. Nameplates for bushing-type current transformers which are mounted in the breaker(s) tank shall be mounted in the breaker(s) control cabinet adjacent to their CT terminal blocks or by the main breaker(s) nameplate. These nameplates shall include information required by ANSI C37.
- 7.9.4 All relays, switches, contactors, starters, and other devices shall be identified by nameplates.
- 7.9.5 Labels identifying 1, 3, 5, and 2, 4, 6, bushings shall be installed so that they are easily visible from the ground.
- 7.10 Breaker(s) Position Indicators
- 7.10.1 Mechanical-type breaker(s) position indicators, positive as far as practical, shall indicate open and closed positions of the breaker(s), shall be clearly visible from the ground at reasonable distances, and shall not require the opening of doors or special lighting. These shall be independent of the control voltage.
- 7.10.2 Breaker(s) position indicators shall be supplemented with LED indicating lamps operating on DC control voltage. Lamps shall be applied as follows:
- a. One (1) green lamp to indicate that all three (3) poles are open. This lamp shall be connected to the DC close circuit. The lamp(s) shall be located in the control cabinet.
 - b. One (1) red lamp to monitor each trip circuit coil and to indicate that any breaker(s) pole is in the closed position. This lamp shall be connected to the DC trip circuit. The lamp(s) shall be located in the control cabinet.
- 7.11 Terminal Connectors
- Tin-plated terminal connectors, NEMA four-hole, spade-type, shall be furnished with the breaker(s). They shall be adequately shielded and corona free.
- 7.12 Pressure Switches
- 7.12.1 Devices for all uses, air, and gases, for automatic control of pressure, for alarms, and for safeguard cutoffs shall be of the highest quality and proven reliability.
- 7.12.2 Contacts, ungrounded, shall be fully insulated and compatible with their associated equipment; those used in DC control circuits shall be suitable for the specified control voltage and shall withstand the full standard AC hi-pot test voltage required of switchboard control wiring.
- 7.12.3 All pressure switches shall have multiple electrically independent contacts and shall be furnished as needed:
- c. To alarm when the pressure drops too low to permit full-duty cycle operation.
 - d. To cut off closing if pressure is insufficient for safe and satisfactory closing.
 - e. A gas pressure manifold valve assembly shall be provided and shall be easily accessible for routine maintenance checks of pressure switches.
 - f. All pressure switches shall have dust covers.
 - g. All switch gauges shall have indicating dials.

7.13 Main Pole Interconnection and Adjustment

7.13.1 The main poles of the breaker(s) shall be mechanically interlocked. The design and arrangement shall be such that the interrupting contacts may be readily adjusted to touch and to part essentially at the same time. Other adjustments may be made as necessary for the proper operation of the breaker(s).

7.13.2 The above requirement for adjustability will not be necessary if proper settings are fixed as part of the manufacturing process and are not subject to drifting from the proper points.

7.14 Auxiliary Equipment and Accessories

7.14.1 The breaker(s) shall be equipped with an operation counter.

7.14.2 Auxiliary relays shall be provided for loss of voltage on all AC and DC circuits; low SF₆ pressure; and for blocking of tripping or closing of the breaker(s).

7.14.3 Auxiliary relays, which perform either a trip or close, start-or-stop function, shall not be mounted on a hinged panel or door. All auxiliary relays shall have dust covers.

7.14.4 All alarm contacts shall be suitable for the stated control voltage, with separate wiring from each device to terminal blocks in the control cabinet.

7.14.5 Mounting facilities shall be furnished for a Doble Type MV motion velocity device.

7.14.6 Two (2) normally open contacts from the breaker(s) closing relay (52X) and one (1) normally closed contact of the anti-pump relay (52Y) shall be wired to the terminal block for use by the Owner. Either side of each contact shall be independently wired to the terminal block (two (2) wires per contact). The 52Y relay coil shall be rated for continuous operation. Contact interruption rating for inductive circuit shall be 3 amperes. The normally open 52X contacts shall remain closed for a minimum of ten (10) cycles during a close operation.

7.14.7 Motors shall have voltage as indicated on the attached Data Sheet. They shall be drip-proof with Class B insulation. They shall have sufficient capacity for all conditions of starting and continuous operation which their pump or compressor may impose, with temperature rise not to exceed 90°C above an ambient of 40°C and a service factor of 1.15. Each motor shall be equipped with its own thermal protection.

7.14.8 Twenty-stage convertible auxiliary switch directly connected to the main operating linkage. This switch shall be made consistent with the requirements of these Specifications.

7.14.9 All necessary SF₆ gas service connection fittings shall be provided for each breaker provided.

7.14.10 Gas vent, as required, shall be provided.

7.14.11 Provision for travel recorder shall be included.

7.14.12 Breaker(s) shall be equipped with a control switch. Switch shall be Electroswitch Series 24, Catalog No. 24570 with pistol grip spring return handle.

7.14.13 All trip coils shall have a trip coil monitor in each individual circuit. These trip coil monitors shall be wired up to the local annunciator.

7.14.14 A 10-point annunciator, minimum, shall be provided for alarming all breaker(s) alarms, tripping, or any breaker(s) trouble. The annunciator shall be as listed in attached Data Sheet or approved equal. All text labels for the front of the

annunciator shall be field installed. The Bidder is to specifically NOT install permanent labels on the front of user configurable areas. The input shall be wired as follows:

- h. InA1: Trip Coil Monitor Trip Circuit #1
- i. InA2: Trip Coil Monitor Trip Circuit #2
- j. InB1: Low Gas Lockout Trip Circuit #1
- k. InB2: Low Gas Lockout Trip Circuit #2
- l. InC1: Low Gas Alarm
- m. InC2: Loss of voltage Close Circuit
- n. InD1: Motor trouble
- o. InD2: Loss of voltage Motor Circuit
- p. InE1: Loss of Voltage Heater Circuit
- q. InE2: Additional alarm specific to individual Manufacturer standard design
- r. InF1: Loss of voltage Trip Circuit #1
- s. InF2: Loss of voltage Trip Circuit #2
- t. InG1: Additional alarm specific to individual Manufacturer standard design
- u. InG2: Additional alarm specific to individual Manufacturer standard design

7.15 Fiber Parts Installation for Annunciator and Transformer Monitor

- 7.15.1 Mount Corning patch panel SPH-01P securely on an internal panel such that outside plant fiber cable (installed by others) can enter the patch panel without violating the bend radius of the fiber cable. It must be possible to route the outside plant fiber cable clear of heaters. Install the Corning Connector Housing Connector Panel in the patch panel. Patch panel location must also allow fiber jumper cables to attach to the Corning Connector Panel ST terminals without violating the bend radius of the fiber jumper cables. Fiber jumper cables may run in the Panduit channel, installation should take care not to damage the fiber jumpers or allow them to be pinched after installation is complete.
- 7.15.2 Using ribbon cable SEL C780, connect the SEL-2812MRX0 transceiver to port number two on the SEL-2533. Secure the DB9 on the ribbon cable to the SEL-2533 with 4-40 machine hardware. Capture the SEL-2812MRX0 with Velcro ties to the adjacent cable. Connect the SEL-2812MRX0 Transmit terminal to the Corning Closet Connector Housing Adapter Panel position number one and connect the Receive terminal to position number two. Fiber jumpers may not be pinched or damaged when the gate opens and closes. Using Velcro ties to secure the fiber jumpers is preferred. Wire ties or other mounting fasteners may not deform the jacket of the fiber jumpers.
- 7.15.3 Engineer will review installation arrangements, connection schematics, and wiring diagrams for proper installation.

Item	Qty	MFG - Part Number	Description
1	1	SEL C780	Ribbon Cable, 6 inches long, with DB-M and DB9-F connectors. Use to connect SEL 2812 to SEL-2533 Port 2.
2	2	MACHINE HARDWARE	4-40 Machine screws, 1/4 inches long Secure cable C780 to SEL-2533 DB-9 connector.
3	1	SEL 2812-MRX0 Key Code: 2386	EIA 232 serial to multimode fiber converter, male DB9 connector, IRIG Receiver.
4	1	Corning CCH-CP-06-15T	Closet Connector Housing Panels, Multi-Mode fiber, 6 positions, ST Connector. No substitutions are allowed.
5	1	Corning 505002K5141002M (Source from any Corning CAH Gold Partner Program certified assembler.)	PROVIDE THIS DESCRIPTION TO THE DISTRIBUTOR WITH THE PART NUMBER: Fiber Optic Jumper, Cable Code K5141, 2 F, ST® Compatible to ST Compatible, Zipcord Tight-Buffered Cable, Riser, with 2.9 mm legs, 62.5 µm multimode (OM1), 2 meters long.
6	1	Corning SPH-01P	Corning Single Panel Housing.

7.16 Piping and Conduit

Furnish all necessary individual storage tanks, piping, valves, and conduit for the complete assembly of the breaker(s). Storage tanks required shall be manufactured to the requirements of the ASME Code Section VIII Division 1 and so stamped and registered with the National Board of Registration. Any safety and/or safety relief valves approved for service on these tanks shall also be constructed in compliance with the latest requirements of the ASME Boiler and Pressure Vessel Code. These valves shall also be stamped and registered with the National Board of Registration.

7.17 Special Tools and Lifting Devices per Each Breaker(s)

7.17.1 Furnish a set of all special tools and hardware required for removal and maintenance of the breaker(s).

7.17.2 Furnish any special lifting devices required for installation and or maintenance of the breaker(s) and/or their accessories.

7.17.3 Furnish lifting eyes and lugs for vertically lifting the entire breaker(s) assembly.

8.0 Spare Parts

8.1 The Bidder shall furnish with the Proposal a recommended spare parts list and spare parts price list applicable to the breaker(s) described in the Proposal. This list shall include, but is not limited to, the following:

- a. Complete interrupter for one (1) pole
- b. One (1) full-capacity-rated bushing
- c. All pressure-limit switches, gauges, and alarm relays
- d. One (1) close coil and one (1) trip coil
- e. One (1) of each type of electric motor
- f. Three (3) of each type of gasket
- g. One (1) of each type of relay coil
- h. One (1) heater element

8.2 The above requirements are for spare parts and prices in the Proposal, but it is not the intention of this Specification that these parts be furnished as part of the Purchase Order.

9.0 Tests

- 9.1 The tests shall be performed on the breaker(s) as a 3-phase unit.
- 9.2 Production tests shall be performed on the breaker(s) and associated bushing current transformer, bushings, and relays as required by present-day standards.
- 9.3 Design tests shall be conducted on the breaker(s) unless design tests have been conducted on a duplicate breaker(s) of the previous manufacture.
- 9.4 Additional tests shall be conducted if not included in the production and design tests, as follows:
 - 9.4.1 Take operations data on the interrupter by means of a Doble breaker(s) analyzer or a Honeywell Visicorder or equivalent, under normal gas and air pressure and control voltage to demonstrate compliance with this Specification and guaranteed values.
 - 9.4.2 Furnish charts showing
 - a. Opening at normal voltage and pressure
 - b. Opening at minimum voltage and pressure
 - c. Closing at normal voltage and pressure
 - d. Closing at minimum voltage and pressure
 - e. Close and trip free at normal voltage and pressure
- 9.5 Above data shall show contact travel against cycle (60-Hertz basis) and shall have the following points marked thereon if applicable:
 - 9.5.1 Opening Operation:
 - a. Trip coil energized
 - b. Air or gas blast starts
 - c. Main contacts part
 - d. Main contacts fully open
 - e. Air or gas blast stops
 - 9.5.2 Closing Operating:
 - a. Closing coil energized
 - b. Main contacts touch
 - c. Main contacts fully closed
 - 9.5.3 Tank test – air or hydrostatic (ASME and State)
 - 9.5.4 Dielectric test on all control wiring and accessories.
 - 9.5.5 Ratio check of current transformers – submit correction curves.
 - 9.5.6 If the breaker(s) or any of its auxiliaries or accessories fails to pass the tests specified, additional tests shall be made to locate the failure. After rework or repair of the failure, the specified tests shall be repeated to ensure that the repaired breaker(s), auxiliary, or accessories will meet the Specification in all respects.

- 9.5.7 Rework or repair and retesting shall be done at Bidder's expense.
- 9.5.8 Bidder shall keep a record of all failures detected during tests, of rework or repair required, and of test data taken after rework or repairs have been completed.
- 9.5.9 Rework or repairs shall be made in accordance with an approved procedure signed by that party responsible to give in-process disposition of such rework or repairs.

APPENDICES

- 1.0 Breaker Data Sheet
- 2.0 Typical Alarm Connections
- 3.0 Vicinity Map

1

Breaker Data Sheet

HV CIRCUIT BREAKER SPECIFICATIONS

DATA SHEET

Booth Contact: Michael Winkler
email: michael.winkler@booth-assoc.com
cc: eric.danner@booth-assoc.com

Drawing Stamp: _____

Required Delivery Date: November 30, 2024

Circuit Breaker Rating Information

Nominal Breaker Rating 115 kV

Maximum Breaker Rating 123 kV

Breaker BIL 550 kV

Continuous Current Rating 2,000 Amps

Interrupting Current Rating 40,000 Amps

Rated Interrupting Time 3 Cycles

Closing and Latching Capability 104 kA, rms

Low Freq. 1 Minute Dry rms 260 kV

Low Freq. 10 Second Wet rms 230 kV

Two microsecond chopped
wave impulse peak 710 kV

Minimum Creepage Distance
Of External Insulation to Ground 78.3 Inches

Frequency 60 Hz

Minimum Ambient Temp. -30 °C

Max. Ambient Temp. 50 °C

Humidity Rating 100 %

Max. Altitude 3,300 Feet

Station Power Information

Station Power Voltage (AC) 120/240 VAC
Station Power Frequency (Hz) 60 Hz
Station Control Voltage (DC) 125 VDC

Equipment Details

Tripping and Closing Voltage 125 VDC
DC Control Contact Ratings 125 VDC
Alarm Contact Voltage 125 VDC
Contact Interruption Voltage 125 VDC
Motor Voltage 120/240 VAC
Annunciator Power Voltage 125 VDC
Annunciator Control Voltage 125 VDC
Annunciator Manufacturer Schweitzer

Annunciator Model Number 2533012130XA2X0 125 VDC Model
Communication Option Yes

Bushings 1, 3, and 5 CT Ratings

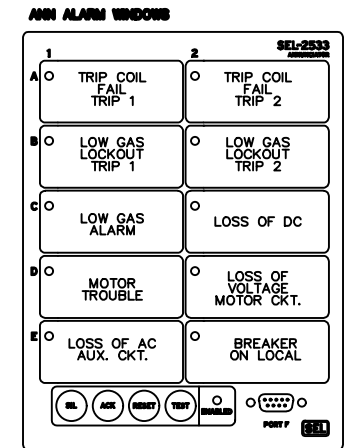
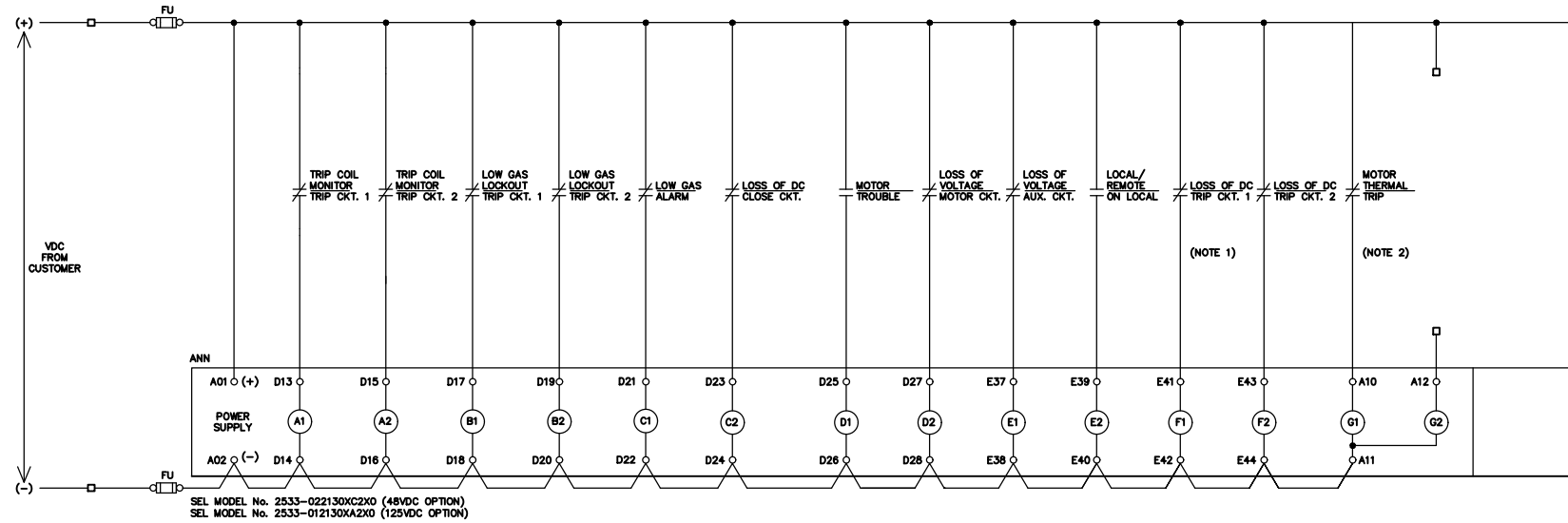
Number of CTs per bushing: 2
CT ratings and placement:
Top CT (X): Ratio: 1200 /5 MR Accuracy Class: C400 Thermal Rating: 2
Center CT (Y): Ratio: 1200 /5 MR Accuracy Class: C400 Thermal Rating: 2
Bottom CT (Z): Ratio: N/A Accuracy Class: Thermal Rating:

Bushings 2, 4, and 6 CT Ratings

Number of CTs per bushing 2
CT ratings and placement:
Top CT (X): Ratio: 1200 /5 MR Accuracy Class: C400 Thermal Rating: 2
Center CT (Y): Ratio: 1200 /5 MR Accuracy Class: C400 Thermal Rating: 2
Bottom CT (Z): Ratio: N/A Accuracy Class: Thermal Rating:

2

Typical Alarm Connections



NOTE
1) INPUTS F1 & F2 PROGRAMMED TO ALARM IN WINDOW C
2) INPUT G1 PROGRAMMED TO ALARM IN WINDOW D1.

LEGEND
○ DEVICE TERMINAL POINT
□ TERMINAL POINT

Booth & Associates

BA

© 11/22

NO.	0	NEW DRAWING
ENG.	BCW	11/09/22
DATE		
REVISIONS		

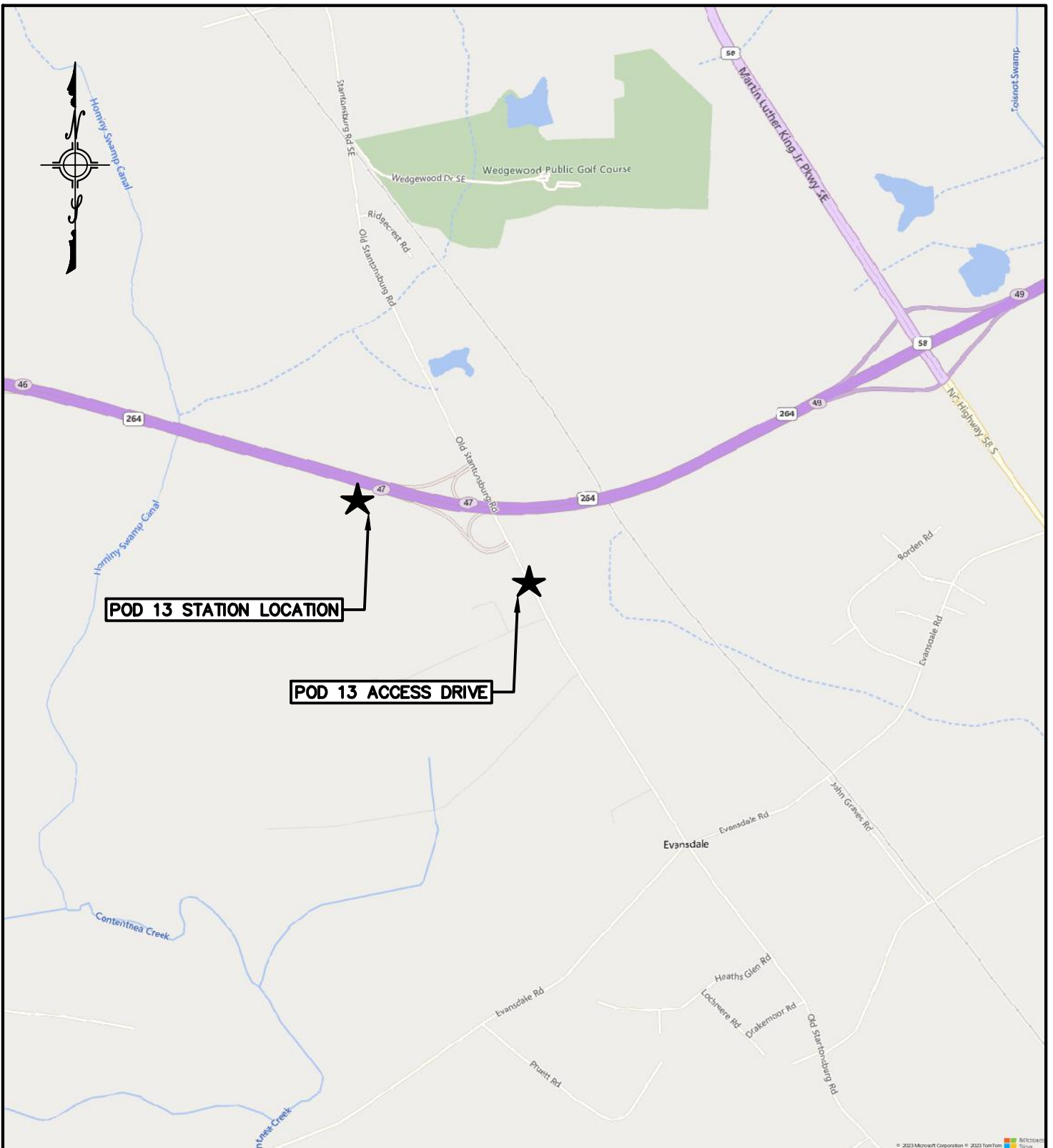
CLIENT NAME: **BOOTH & ASSOCIATES STANDARD**
RALEIGH, NORTH CAROLINA

STATION NAME: **BOOTH & ASSOCIATES STANDARD**
STANDARD HV BREAKER
TYPICAL ALARM CONNECTIONS

DRAWN BY:	BCW
CHECKED BY:	BCW
APPROVED BY:	BCW
DATE:	11/09/22
SCALE:	NONE
FILE NUMBER:	APP2
SHEET:	APP2

3

Vicinity Map



POD 13 STATION LOCATION

POD 13 ACCESS DRIVE

ACCESS DRIVE COORDINATES:
 35.6654461° N
 77.8774384° W

CITY OF WILSON
 WILSON, NORTH CAROLINA

POD 13
 VICINITY MAP



DWN. AAI	DATE: 09/26/23	DWG. NO. VM-1
CKD. NAJ	APPD. MW	
SCALE: 1" = 2000'	FILE: 14116VM	
JOB NO. PZ943497	DATE	
© 09/2023		