

PROJECT MANUAL

2024 Generator Replacement Sewer Pump Station #2

Project Number: PW-2024-20



Prepared By: Town of Tyrone

January 24, 2024

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ADVERTISEMENT FOR BIDS

Owner: Town of Tyrone

Project Name: 2024 Generator Replacement Sewer Pump Station #2

Project Number: PW-2024-20

Project Location: Jenkins Road Sewer Pump Station #2 Next to Fire Station 3 – 420 Jenkins Road

Description of Project/Services: The project consists of removing the existing generator and the legal disposal of the existing generator, along with replacement of existing standby generator at Pump Station #2, at Jenkins Road, Tyrone, Ga 30290.

Bid/Submittal Due Date: February 22, 2024 **Service Cost Range:** \$40,000 - \$60,000

PROJECT DOCUMENTS MAY BE OBTAINED FROM: <http://tyrone.org/links/bid-items/>

- All public notices, addendum and other documents shall be posted at <http://tyrone.org/links/bid-items/>
- Licensure: To be considered for selection, persons or firms must be properly licensed in accordance with the requirements of the Official Code of Georgia Annotated, as amended, at the time of proposal submission.
- All communication shall be in writing with the Project Manager listed below. Preferred method of communication is email.

Project Coordinator/Manager: Curtis Carson, PMP **Title:** Engineering & PW Specialist

Address: **Street:** 950 Senoia Road

City: Tyrone

State: Georgia

ZIP: 30290

EMAIL: ccarson@tyrone.org

Phone: 770-487-4038

Pre-submittal Conference: None

Submittal Due Date: February 22, 2024 **Time:** 10:00 AM

Location: Tyrone Town Hall

Submittal Delivery Address:

Hand Delivery: Town of Tyrone

Attn: Curtis Carson, PMP

950 Senoia Road

Tyrone, GA 30290

Mail Services: Town of Tyrone

Attn: Curtis Carson, PMP

950 Senoia Road

Tyrone, GA 30290

Approved By: _____
(Town Manager)

Date: _____



INVITATION FOR QUOTES

Project Name: 2024 Generator Replacement Sewer Pump Station #2

Project Number: PW-2024-20

Project Location: Jenkins Road, Sewer Pump Station #2, Tyrone GA 30290

Bid Security Required: No

Performance Bond Required: No

Payment Bond Required: No

Project Description: Removal and legal disposal of existing generator and replacement with new equivalent Cummins generator, including installation, factory startup, operation orientation after completion.

Project A&E: Same as Owner

Project Owner: Town of Tyrone; 950 Senoia Road, Tyrone, GA 30290

Project Contact: Curtis Carson, PMP Email: ccarson@tyrone.org Phone: 770-487-4038

Pre-Quote Conference: None

Quote Delivery: Mail or hand deliver sealed bid to Project Contact listed above. It is the contractor's responsibility to ensure that the bid is properly delivered by the time listed on this invitation.

Quote Closing Date: February 22, 2024 Time: 10:00 AM Location: Tyrone Municipal Complex

Attn: Curtis Carson

950 Senoia Road

Tyrone GA 30290

Instruction for Bidders

January 24, 2024

Return completed **bid form, and certificate of insurance** as required in the Bid Documents to:

**Town of Tyrone
Attn: Curtis Carson
950 Senoia Road
Tyrone GA, 30290**

Complete bid package must be received no later than 10:00 AM EST on February 22, 2024. It is the responsibility of the bidder to ensure the owners receipt of the completed bid package. The project consists of removing the existing generator and legal disposal of the existing generator, along with replacement of existing standby generator at Pump Station #2, at Jenkins Road, Tyrone, Ga 30290. Contractor will perform a factory authorized start-up. The contractor will inspect the installation and provide written approval of the start-up. The contractor will simulate a power outage and demonstrate that the generator will automatically start and begin supplying power without any hands-on involvement. When normal power is restored, the generator will shut itself off and return to standby status.

By submitting and signing the bid form, the contractor acknowledges that they are familiar with the site and existing conditions as ascertained through a site visit. No adjustments will be made in the contract price due to existing site conditions not shown in the specifications or plans which could have been discovered by a site visit by the contractor. Site visits will be allowed between 8:30 AM to 4:00 PM, Monday through Friday. It is required to schedule an appointment for access. Appointments require 24 hour notice (1 business day) and can be scheduled by contacting Curtis Carson at 770-487-4038.

2024 Generator Replacement SEWER PUMP STATION #2
PW-2024-20
BID FORM

Bidder declares that the full name and business address of Bidder's Principal is as follows:

FEIN# (required) _____

Company _____

Address _____

City/State/ZIP CODE _____

Phone _____ Email _____

ACKNOWLEDGE AGENDA (Initial each received):

Addendum #1 _____

Addendum #2 _____

Other Addendum # _____ (number and initial as applicable)

Signature acknowledges that Bidder has read the bid documents thoroughly before submitting a bid, will fulfill the obligations in accordance to the scope of work or specifications, terms, and conditions, and is submitting without collusion with any other individual or firm. Authorized signature is required. Bidder also certifies they are a Drug Free Workplace.

BASE BID:

BIDDER agrees to perform all the work described in the CONTRACT DOCUMENTS for the following lump sum including all applicable taxes and fees:

BASE BID SCHEDULE

No.	Item	Estimate Quantity	Unit	Unit Price	Total Price
1.	Remove and replace existing generator with equivalent Cummins components, complete.	1	Lump Sum	\$	\$
2.	Allowance for Special Contingency	1	Lump Sum	\$ 2,500.00	\$ 2,500.00

Total of Base Bid (including allowance) - \$ _____

UNIT PRICE: BIDDER agrees to perform all the work described in the CONTRACT DOCUMENTS for the following unit price including all applicable taxes and fees:

No.	Item	Unit Price
1.	N/A	\$

2024 Generator Replacement SEWER PUMP STATION #2
PW-2024-20
BID FORM

Bidder has examined the premises and conditions affecting the Work, the undersigned proposes to furnish all services, labor and materials called for by them for the entire Work, in accordance with said documents,

for the Base Bid price of: _____ DOLLARS (in words)

\$_____ (in Numbers) which amount is hereinafter called the "Base Bid."

Signed, sealed, and dated this _____ day of _____, 2024

Legal Name of Company: _____

Company Seal

Authorized Signature: _____

Printed Name: _____

Title: _____

(THE TOWN OF TYRONE RESERVES THE RIGHT TO ADD/MODIFY/DELETE WORK and/or SITES IN THIS CONTRACT)
Project Manager: Curtis Carson, PMP, Public Works & Engineering Specialist; ccarson@tyrone.org, 770-487-4038

AGREEMENT

THIS AGREEMENT made this _____ day of _____, 20____, by and between the Town of Tyrone, Georgia, hereinafter called “Town” and _____, hereinafter called “Contractor”.

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned:

Section 1. Scope of Work

The Work to be performed by the Contractor shall consist of removing the existing generator and legal disposal of the existing generator, along with replacement of the existing standby generator at Pump Station #2, at Jenkins Road, Tyrone, Ga 30290. Contractor will perform a factory authorized start-up. The contractor will inspect the installation and provide written approval of the start-up. The contractor will simulate a power outage and demonstrate that the generator will automatically start and begin supplying power without any hands-on involvement. When normal power is restored, the generator will shut itself off and return to standby status. removing the existing generator replacing with new equivalent Cummins generator, located at Jenkins Road Sewer Pump Station #2 in Tyrone, Georgia. Installation shall be in accordance with the project documents dated January 24, 2024. The Contractor will furnish all of the materials, supplies, tools, equipment, labor, and other services necessary for the Work described herein.

Section 2. Term

The Contractor will perform the Work described herein within the timeframe as stated in the project documents’ Bid Form.

Section 3. Payment

The Owner shall pay to the Contractor compensation upon completion by the Contractor of the Work described herein. Payment terms are NET 30 days following receipt of a correct invoice. Invoices must be submitted to:

Town of Tyrone
Attn: Curtis Carson
950 Senoia Road
Tyrone, Georgia 30290

Section 4. Insurance

The Firm's Comprehensive General and Automobile Liability Insurance shall be written for not less than limits of liability as follows:

- A. Comprehensive General Liability
 - a. Bodily and Personal Injury, Property Damage and Contractual: \$1,000,000 Combined Single Limit Each Occurrence/\$2,000,000 General Aggregate
 - b. General Aggregate Limits shall apply per Project
- B. Comprehensive Automobile Liability
 - a. Bodily Injury and Property Damage: \$1,000,000 Combined Single Limit Each Occurrence
 - b. Any Auto including Hired and Non-Owned liability coverage is required.
- C. Workers' Compensation
 - a. Workers' Compensation insurance covering all employees of Contractor or any subcontractor engaged in performing the services required by this proposal of not less than the minimum requirement of \$100,000 per accident/\$100,000 Disease each employee/\$500,000 Disease policy limit. At a minimum, the policy must also meet Georgia required coverage.

D. The Town must be listed as “additional insured” on the policy of insurance as follows: Town of Tyrone; 950 Senoia Road; Tyrone, GA 30290.

Firm shall provide the Town with a valid Certification of Insurance evidencing the Town as an addition. The certificate shall be on the ACORD 25 form. The certificate will further confirm that at least thirty (30) days prior written notice will be furnished to the Town by Insurer before cancellation or non-renewal of policy. The insurance policies may not include a deductible, retention or self-insurance in excess of \$10,000. It is further understood that any coverage extended by reason of this paragraph shall be primary and non-contributory and such shall be evidenced on the Certificate of Insurance. Any insurance maintained by the Town of its own protection shall be secondary of excess insurance. All insurance companies providing coverage must have an AM Best Rating of A-VII or better unless approved by the Town in advance at its sole discretion.

Providing and maintaining adequate insurance coverages is a material obligation of the Contractor and is of the essence of this contract. All such insurance shall meet all laws of the State of Georgia. Such insurance coverage shall be obtained from companies that are authorized to provide such coverage and that are authorized to do business in Georgia. The Contractor shall, at all times, comply with the terms of such insurance policies, and all requirement of the insurer under any such insurance policies, except as they may conflict with existing Georgia laws or this contract. The limits of coverage under each insurance policy maintained by the Contractor shall not be interpreted as limiting the Contractor’s liability and obligations under the contract. Upon award of this contract, the selected Contractor shall add the Town of Tyrone as a certificate holder to their insurance policy and the Town shall be listed as additional insured.

Section 5. Indemnification

The Contractor shall save and hold harmless, pay on behalf of, protect, defend, indemnify the Town, assure entire responsibility and liability for losses, expenses, demands and claims in connection with or arising out of any injury, or alleged injury (including death) to any person, or damage, or alleged damage, to property of the Town or others sustained or alleged to have been sustained in connection with or to have arisen out of or resulting from the performance or the intended performance of any work/service, outlined or resulting from this agreement, by the Contractor or their employees, including losses, expenses or damages sustained by the Town or Town officials, including the Mayor and Council members and employees of the Town from any and all such losses, expenses, damages, demands and claims. The Contractor further agrees to defend any suit or action brought against the Town or Town officials based on any such alleged injury or damage and to pay all damages, cost and expenses in connection therewith or resulting there from. As an integral part of this agreement, the Contractor agrees to purchase and maintain, during the life of this contract, contractual liability insurance in the amounts required in the general liability insurance requirements. The obligations of the Contractor pursuant to this paragraph shall not be limited in any way by any limitation in the amount or type of proceeds, damages, compensation, or benefits payable under any policy of insurance or self-insurance maintained by or for the use and benefit of the Contractor.

Section 6. Subcontracting

The Contractor shall not have the right or power to assign, subcontract, or transfer interest in this contract. The Contractor is prohibited from subcontracting any services covered in the scope of work.

Section 7. Changes

The Town shall have the right, at any time, to alter the specifications to meet increased or decreased needs. If any such changes cause an increase or decrease in the cost or the time required for the performance, or otherwise affects any other provision of this agreement, an equitable adjustment shall be made and this agreement shall be modified in writing accordingly.

Section 8. Non-Discrimination

The Contractor shall not discriminate against any individuals and will take proactive measures to assure compliance with all Federal and State requirements concerning fair employment, employment of people with disabilities, and concerning the treatment of all employees without regard to discrimination based upon age, race, color, religion, sex, national origin or disability.

Section 9. Governing Laws

This contract is made under and shall be governed and construed in accordance with the laws of the State of Georgia.

Section 10. Termination for Cause

The Town reserves the right to terminate this contract at any time for cause. The violation of any provision or condition contained in this contract, or the refusal, failure, or inability to carry out any provisions of this contract shall constitute sufficient grounds to terminate this contract for cause. Should the Town elect to terminate this contract for cause, the Town will notify the Contractor 30 days prior to the termination date and shall specify the cause for termination as well as the date the termination shall be effective. This termination notice will be issued via a written letter sent by certified U.S. mail. Immediate dismissals may be executed if deemed necessary by the Town.

Section 11. Termination without Cause

The Town and/or the Contractor may terminate this contract without cause. Written notice of termination must be sent via certified U.S. mail no later than thirty (30) days prior to the termination date.

Section 12. Employee Guidelines

The Contractor certifies that it maintains a drug free work place environment to ensure workers safety and workplace integrity. The Contractor further agrees that their employees shall comply with the Georgia Drug-Free Workplace Policy.

While engaged in the performance of these services, only authorized employees of the Contractor are allowed at the Town's location where the work is being performed. During the performance of these services, the Contractor employees are not to be accompanied in work area by acquaintance, family members, associates or any other person(s) who are not a current, authorized employee(s) of the Contractor.

The Contractor shall use only qualified personnel to provide the required services. The Contractor shall be responsible for insuring that employees abide by all rules and regulation set forth for the public areas where the work is being performed.

Section 13. Safety

The Contractor and any persons employed by the Contractor shall be required to adhere to all OSHA requirements and regulations that apply while performing any part of the Work described herein.

The Contractor shall perform all work in accordance with State and Federal safety regulation in regards to work zones, work areas, equipment, vehicles, tools and supplies. The Contractor shall provide all necessary and required work zone protective devices and traffic channeling devices as required under State and Federal safety regulations.

Should the Contractor fail to perform the work in accordance with State and Federal safety regulations, the Town, at its' option may cancel any agreement, reserving for itself any remedies it may have for breach of contract.

The Contractor shall protect the safety and convenience of the general public. The Contractor shall perform work as needed and necessary to protect the general public from hazards.

[SIGNATURES FOLLOW ON NEXT PAGE]

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized official, this Agreement in quadruplicate (four copies) of which each shall be deemed an original on the date first above written.

TOWN OF TYRONE, GEORGIA

By: _____

Name: _____

Title: _____

(SEAL)

Attest:

Name: _____

(Please Print)

Title: _____

(Company Name):

By: _____

Name: _____

Address: _____

(SEAL)

Attest:

Name: _____

(Please Print)

Title: _____

STATE OF GEORGIA FAYETTE

COUNTY

GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT OF 2006

WITNESSETH :

1. Pursuant to the Georgia Security and Immigration Compliance Act of 2006, the Contractor understands and agrees that compliance with the requirements of O.C.G.A. § 13-10-91 and Georgia Department of Labor Rule 300-10-1-.02. are conditions of this Agreement. The Contractor further agrees that such compliance shall be attested by the Georgia Department of Labor through execution of the contractor affidavit. The Contractor's fully executed affidavit is attached hereto as Exhibit "A" and is incorporated into this Agreement by reference herein.

2. The Contractor understands and agrees that, in the event the Contractor employs or contracts with any subcontractor of subcontractors in connection with this Agreement, the Contractor shall:

- A. Secure from each such subcontractor and sub-subcontractor an attestation of the subcontractor's compliance with O.C.G.A. § 13- 10- 91 and Georgia Department of Labor Rule 300-10-1.02 by causing each such subcontractor to execute the subcontractor affidavit required by Georgia Department of Labor Rule 300-10- 1-.08, which is attached hereto as Exhibit "B", and sub- subcontractor, hereto as Exhibit "C", or a substantially similar

subcontractor affidavit. The Contractor further understands and agrees that the Contractor shall require the executed subcontractor affidavit to become part of the agreement between the Contractor and each such subcontractor. The Contractor agrees to maintain records of each subcontractor attestation required hereunder for inspection by the Department at any time.

CONTRACTOR AFFIDAVIT UNDER O.C.G.A 13-10-91(b) (1)

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services on behalf of the Town of Tyrone, Georgia has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. 13-10-91. Furthermore, the undersigned contractor will continue to use the federal work authorization program throughout the contract period and the undersigned contractor will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present an affidavit to the contractor with the information required by O.C.G.A. 13-10-91(b). Contractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

Federal Work Authorization User Identification Number

Date of Authorization

Name of Contractor

Name of Project

Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on _____, 20__ in (city) _____ (state) _____.

Signature

Printed Name and Title of Authorized Officer of Agent

SUBSCRIBED AND SWORN BEFORE ME

ON THIS _____, 20__.
THE ___ Day of

NOTARY PUBLIC

My Commission Expires: _____

O.C.G.A. 50-36-1 (e)(2) Affidavit

By executing this affidavit under oath, as an applicant for a(n) _____ Contract _____, as referenced in O.C.G.A. 50-36-1, from Town of Tyrone, Georgia, the undersigned applicant verifies one of the following with respect to my application for a public benefit:

- 1) I am a United States citizen.
- 2) I am a legal permanent resident of the United States.
- 3) _____ I am a qualified alien or non-immigrant under the Federal Immigration and Nationality Act with an alien number issued by the Department of Homeland Security or other federal immigration agency.

My alien number issued by the Department of Homeland Security or other federal immigration agency is: _____

The undersigned applicant also hereby verifies that he or she is 18 years of age or older and has provided at least one secure and verifiable document, as required by O.C.G.A. 50-36-1 (e)(1), with this affidavit.

The secure and verifiable document provided with this affidavit can best be classified as: (Driver's License, _____
Passport, etc. - Attach copy)

In the making the above representation under oath, I understand that any person who knowingly and willfully makes a false, fictitious, or fraudulent statement or representation in an affidavit shall be guilty of a violation of O.C.G.A 16-10-2-, and face criminal penalties as allowed by such criminal statute.

Executed in _____(city) _____(state).

Signature of Applicant

Printed Name of Applicant

SUBSCRIBED AND SWORN BEFORE ME ON
THIS THE
____ DAY OF _____, 20 ____

NOTARY PUBLIC
My Commission Expires:

EXHIBIT 'B'

SUBCONTRACTOR AFFIDAVIT UNDER O.C.G.A. 13-10-91(b)(3)

By executing this affidavit, the undersigned subcontractor verifies its compliance with O.C.G.A. 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services under a contract with _____ on behalf of Town of Tyrone, Georgia has registered with is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. 13-10-91. Furthermore, the undersigned subcontractor will continue to use the federal work authorization program throughout the contract period and the undersigned subcontractor with the information required by O.C.G.A. 13-10-91(b). Additionally, the undersigned subcontractor will forward notice of the receipt of an affidavit from a sub-subcontractor to the contractor within five business days of receipt. If the undersigned subcontractor receives notice of receipt of an affidavit from any sub-subcontractor that has contracted with a sub-subcontractor to forward, within five business days of receipt, a copy of such notice to the contractor. Subcontractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

Federal Work Authorization User Identification Number

Date of Authorization

Name of Subcontractor

Name of Project

Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on _____, 20__ in (city) _____ (state) _____.

Signature

Printed Name and Title of Authorized Officer of Agent SUBSCRIBED AND

SWORN BEFORE ME

ON THIS THE__ DAY OF _____, 21____

NOTARY PUBLIC

My Commission Expires:

EXHIBIT 'C'

SUB-SUBCONTRACTOR AFFIDAVIT UNDER O.C.G.A. 13-10-91(b)(4)

By executing this affidavit, the undersigned sub-subcontractor verifies its compliance with O.C.G.A. 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services under a contract with *(name of subcontractor or sub-subcontractor with whom such sub-subcontractor has privity of contract)* and *(name of contractor)* on behalf of Town of Tyrone, Georgia has registered with is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. 13-10-91. Furthermore, the undersigned subcontractor will continue to use the federal work authorization program throughout the contract period and the undersigned subcontractor with the information required by O.C.G.A. 13-10-91(b). The undersigned sub-subcontractor shall submit, at the time of such contract, this affidavit to *(name of subcontractor of sub-subcontractor with whom such sub- subcontractor has privity of contract)*. Additionally, the undersigned sub-subcontractor will forward notice of the receipt of an affidavit from a sub-subcontractor to *(name of subcontractor of sub-sub-subcontractor with whom such sub-subcontractor has privity of contract)*. Subcontractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

Federal Work Authorization User Identification Number

Date of Authorization

Name of Sub-subcontractor

Name of Project

Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on __, ____, 202__ in (city) _____ (state) ____.

Signature

Printed Name and Title of Authorized Officer of Agent SUBSCRIBED AND SWORN

BEFORE ME

ON THIS THE __ DAY OF ----- 210

NOTARY PUBLIC

My Commission Expires: _____

SECTION 00100 - GENERAL REQUIREMENTS

PART 1 - GENERAL PROVISIONS

- 1.1 The proposed work is located at the Sewer Pump Station #2, Jenkins Road, Tyrone, Georgia.

PART 2 - PRODUCTS – OWNER

- 2.1. Town of Tyrone
950 Senoia Road
Tyrone, GA 30290

PART 3 - CONTRACTOR

- 3.1 Project is to be substantially complete within 30 calendar days from the Commencement Date as depicted on the Notice to Proceed. Substantially complete implies that the generator has been replaced and has been demonstrated to be operational to serve their intended purpose.
- 3.2 Construction hours shall be from 8:00 am until 5:00 pm.
- 3.3 For temporary facilities and controls, the Contractor is required to provide for this work including, but are not necessarily limited to:
- A. Temporary utilities such as water, sanitary facilities, electricity and telephone.

The Contractor shall use the means that are necessary to maintain temporary facilities and controls in their proper and safe condition throughout the progress of the work.

In the event of loss or damage, the Contractor shall immediately make repairs and replacements necessary at no cost to the Owner.

The Contractor shall provide adequate artificial lighting when natural light is not adequate for work and for areas accessible to workmen.

The Contractor shall provide temporary sanitary toilets for use by personnel, maintain in sanitary condition, and comply with the minimum requirements of public agencies having jurisdiction.

For the aid of safety, the Contractor shall provide and maintain for duration of construction, required barricades, warning signs, steps, bridges, platforms and other temporary construction necessary for safety of workmen in compliance with pertinent safety and other regulations.

- 3.4 The Contractor shall maintain these temporary facilities and controls for the safe proper completion of work and remove such facilities and controls as the work progress permits or as directed by the Engineer.
- 3.5 The Contractor shall exercise these general safety requirements for hazard control.
- The Contractor shall store volatile wastes in covered metal containers during work hours and remove from premises at end of workday.
- The Contractor shall conduct cleaning and disposal operations to comply with applicable ordinances and anti-pollution laws.
- The Contractor shall use cleaning materials only on surfaces recommended by the cleaning material manufacturer.
- The Contractor shall not burn or bury rubbish and waste materials on the project site.
- The Contractor shall dispose of volatile wastes in accordance with state, federal and local regulations.
- The Contractor shall not dispose of wastes into streams, waterways or wetlands.
- The Contractor shall remove all waste from the site and dispose of it in accordance with the local agency having jurisdiction.
- Playing music and/or smoking is prohibited on job site.
- 3.6 During construction, the Contractor shall execute cleaning to ensure that the site is maintained free from waste materials and rubbish accumulation.
- The Contractor shall provide on-site containers for the collection of waste materials, debris and rubbish.
- 3.7 The Contractor shall remove waste materials, debris and rubbish from site and legally dispose of at public or private dumping areas off the Owner's property.

PART 4 – ADMINISTRATION OF THE CONTRACT

4.1 Owner Representative:
Curtis L. Carson, PMP
Town of Tyrone
950 Senoia Road
Tyrone, GA 30290

- 4.2 Contractor shall provide a one (1) year warranty for all work performed under this Contract along with generator warranty as specified in the specifications.

END OF SECTION 00100

SECTION 263213 - ENGINE GENERATORS

PART 4 - GENERAL

4.1 SUMMARY

- A. This Section includes packaged engine-generator sets for standby power supply with the following features:
 - 1. Natural gas engine.
 - 2. Unit mounted cooling system.
 - 3. Remote-mounting control and monitoring.
 - 4. Outdoor enclosure.

4.2 SUBMITTALS

- A. Product Data: For each type of packaged engine generator and accessory indicated.
- B. Shop Drawings: Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, components, and location and size of each field connection.
- C. Operation and maintenance data and training.
- D. Warranty: Special warranty and contractor warranty specified in Section 1.5.

4.3 QUALITY ASSURANCE

- A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation of units required for this Project.
- B. Manufacturer Qualifications: A qualified manufacturer. Maintain, within 100 miles of Project site, a service center capable of providing training, parts, and emergency maintenance repairs.
- C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- D. Comply with NFPA 37.
- E. Comply with NFPA 70.
- F. Comply with NFPA 110 requirements for Level 1 emergency power supply system.
- G. Comply with UL 2200.
- H. Engine Exhaust Emissions: Comply with applicable state and local government requirements.

- I. Noise Emission: Comply with Town of Tyrone Local Ordinances [Source: Code of Ordinances Sec. 28-156. – Exemptions (a)(3)] for maximum noise level at due to sound emitted by generator set including engine, engine exhaust, engine cooling-air intake and discharge, and other components of installation.

4.4 PROJECT CONDITIONS

- A. Environmental Conditions: Engine-generator system shall withstand the following environmental conditions without mechanical or electrical damage or degradation of performance capability:
 1. Ambient Temperature: Minus 15 deg C to plus 40 deg C.
 2. Relative Humidity: 0 to 95 percent.
 3. Altitude: Sea level to 1000 feet.

4.5 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of packaged engine generators and associated auxiliary components that fail in materials or workmanship within specified warranty period.
 1. Warranty Period: 2 years from date of Substantial Completion.
- B. Contractor Warranty: Contractor's statement in which the contractor agrees to full warranty for parts and labor.
 1. Warranty Period: 1 year from date of Substantial Completion.

PART 5 - PRODUCTS

5.1 MANUFACTURERS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide the Cummins RS100-100kW-NG/LPV-Aluminum Enclosure-277/480-3Ph; Part No.: A054F873, or a comparable product by the following:
 1. Cummins Inc.

5.2 ENGINE-GENERATOR SET

- A. Factory assembled and tested engine-generator set.
- B. Mounting Frame: Maintain alignment of mounted components without depending on concrete foundation; and have lifting attachments.
- C. Capacities and Characteristics:
 1. Power Output Ratings:
 - a. Shall comply with Basis-of-Design Product.

2. Nameplates: For each major system component to identify manufacturer's name and address, and model and serial number of components.

D. Generator-Set Performance:

1. Governor regulation class: ISO 8528 Part1 Class G3
2. Voltage regulation, no load to full load: +/-1.0%.
3. Random voltage regulation: +/-1.0%.
4. Frequency regulation: Isochronous.
5. Random frequency variation: +/-0.25% @ 60 Hz.
6. Radio frequency emissions compliance: FCC code Title 47 part 15 Class B.

5.3 ENGINE

A. Fuel: Natural gas

B. Rated Engine Speed: 1800 rpm.

C. Lubrication System: The following items are mounted on engine or skid:

1. Filter and Strainer: Rated to remove 90 percent of particles 5 micrometers and smaller while passing full flow.
2. Thermostatic Control Valve: Control flow in system to maintain optimum oil temperature. Unit shall be capable of full flow and is designed to be fail-safe.
3. Crankcase Drain: Arranged for complete gravity drainage to an easily removable container with no disassembly and without use of pumps, siphons, special tools, or appliances.

D. Engine Fuel System:

1. Natural Gas System:
 - a. Carburetor.
 - b. Secondary Gas Regulators:
 - c. Fuel-Shutoff Solenoid Valves:
 - d. Flexible Fuel Connectors:

E. Governor: Adjustable isochronous, with speed sensing.

F. Cooling System: Closed loop, liquid cooled, with radiator factory mounted on engine-generator-set mounting frame and integral engine-driven coolant pump.

1. Coolant: Solution of 50 percent ethylene-glycol-based antifreeze and 50 percent water, with anticorrosion additives as recommended by engine manufacturer.
2. Temperature Control: Self-contained, thermostatic-control valve modulates coolant flow automatically to maintain optimum constant coolant temperature as recommended by engine manufacturer.

G. Muffler/Silencer: Critical type, sized as recommended by engine manufacturer and selected with exhaust piping system to not exceed engine manufacturer's engine backpressure requirements.

1. Minimum sound attenuation of 25 dB at 500 Hz.

2. Sound level measured at a distance of 10 feet from exhaust discharge after installation is complete shall be 85 dBA or less.
- H. Air-Intake Filter: Normal-duty, engine-mounted air cleaner with replaceable dry-filter element and "blocked filter" indicator.
- I. Starting System: 12-Vdc electric, with negative ground.
1. Components: Sized so they will not be damaged during a full engine-cranking cycle with ambient temperature at maximum specified in Part 1 "Project Conditions" Article.
 2. Cranking Motor: Automatically engages and releases from engine flywheel without binding.
 3. Cranking Cycle: As required by NFPA 110 for system level specified.
 4. Battery: Adequate capacity within ambient temperature range specified in Part 1 "Project Conditions" Article to provide specified cranking cycle at least twice without recharging.
 5. Battery-Charging Alternator: Factory mounted on engine with solid-state voltage regulation.

5.4 CONTROL AND MONITORING

- A. Automatic Starting System Sequence of Operation: When mode-selector switch on the control and monitoring panel is in the automatic position, remote-control contacts in one or more separate automatic transfer switches initiate starting and stopping of generator set. When the mode-selector switch is switched to the on position, generator set starts. The off position of the same switch initiates generator-set shutdown. When the generator set is running, specified system or equipment failures automatically shut down generator set and initiate alarms.
- B. Manual Starting System Sequence of Operation: Switching on-off switch on the generator control panel to the on position starts generator set. The off position of the same switch initiates generator-set shutdown. When the generator set is running, specified system or equipment failures automatically shut down generator set and initiate alarms.
- C. Configuration: Operating and safety indications, protective devices, basic system controls, and engine gages shall be grouped in a common control and monitoring panel mounted on the generator set. The mounting method shall isolate the control panel from generator-set vibration.
- D. Indicating and Protective Devices and Controls: As required by NFPA 110 for Level 2 system, and the following:
1. AC voltmeter.
 2. AC ammeter.
 3. AC frequency meter.
 4. DC voltmeter (alternator battery charging).
 5. Engine-coolant temperature gage.
 6. Engine lubricating-oil pressure gage.
 7. Running-time meter.
 8. Ammeter-voltmeter, phase-selector switch(es).
 9. Generator-voltage adjusting rheostat.
 10. Generator overload.
- E. Supporting Items: Include sensors, transducers, terminals, relays, and other devices and include wiring required to support specified items. Locate sensors and other supporting items on engine or generator, unless otherwise indicated.

- F. Common Remote Audible Alarm: Comply with NFPA 110 requirements for Level 2 systems. Include necessary contacts and terminals in control and monitoring panel.
 - 1. Overspeed shutdown.
 - 2. Coolant low-temperature alarm.
 - 3. Control switch not in auto position.
 - 4. Battery-charger malfunction alarm.
 - 5. Battery low-voltage alarm.

- G. Remote Alarm Annunciator: An LED labeled with proper alarm conditions shall identify each alarm event and a common audible signal shall sound for each alarm condition. The silencing switch in face of panel shall silence signal without altering visual indication. Connect so that after an alarm is silenced, clearing of initiating condition will reactivate alarm until silencing switch is reset. Cabinet and faceplate are surface- or flush-mounting type to suit mounting conditions indicated.

5.5 GENERATOR OVERCURRENT AND FAULT PROTECTION

- A. Generator Circuit Breaker: Molded-case, thermal-magnetic type; 100 percent rated; complying with NEMA AB 1 and UL 489.
 - 1. Tripping Characteristic: Designed specifically for generator protection.
 - 2. Trip Rating: Matched to generator rating.
 - 3. Shunt Trip: Connected to trip breaker when generator set is shut down by other protective devices.
 - 4. Mounting: Adjacent to or integrated with control and monitoring panel.

- B. Ground-Fault Indication: Comply with NFPA 70, "Emergency System" signals for ground-fault. Integrate ground-fault alarm indication with other generator-set alarm indications.

5.6 GENERATOR, EXCITER, AND VOLTAGE REGULATOR

- A. Drive: Generator shaft shall be directly connected to engine shaft. Exciter shall be rotated integrally with generator rotor.

- B. Construction shall prevent mechanical, electrical, and thermal damage due to vibration, overspeed up to 125 percent of rating, and heat during operation at 110 percent of rated capacity.

- C. Enclosure: Drip proof.

- D. Instrument Transformers: Mounted within generator enclosure.

- E. Voltage Regulator: Solid-state type, separate from exciter, providing performance as specified.
 - 1. Adjusting rheostat on control and monitoring panel shall provide plus or minus 5 percent adjustment of output-voltage operating band.

5.7 OUTDOOR GENERATOR-SET ENCLOSURE

- A. Description: Vandal-resistant, weatherproof steel housing, wind resistant up to 180 mph. Multiple panels shall be lockable and provide adequate access to components requiring maintenance. Panels shall be removable by one person without tools. Instruments and control shall be mounted within enclosure.
- B. Engine Cooling Airflow through Enclosure: Maintain temperature rise of system components within required limits when unit operates at 110 percent of rated load for 2 hours with ambient temperature at top of range specified in system service conditions.
 - 1. Louvers: Fixed-engine, cooling-air inlet and discharge. Storm-proof and drainable louvers prevent entry of rain and snow.

5.8 FINISHES

- A. Indoor and Outdoor Enclosures and Components: Manufacturer's standard finish over corrosion-resistant pretreatment and compatible primer.

PART 6 - EXECUTION

6.1 INSTALLATION

- A. Comply with packaged engine-generator manufacturers' written installation and alignment instructions and with NFPA 110.
- B. Install packaged engine generator to provide access, without removing connections or accessories, for periodic maintenance.
- C. Secure sets to anchor bolts installed in concrete base.

6.2 FIELD QUALITY CONTROL

- A. Perform tests and inspections and prepare test reports.
 - 1. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.
- B. Tests and Inspections:
 - 1. Perform tests and inspections recommended by manufacturer.
- C. Coordinate tests with tests for transfer switches and run them concurrently.
- D. Leak Test: After installation, charge system and test for leaks. Repair leaks and retest until no leaks exist.

- E. Operational Test: After electrical circuitry has been energized, start units to confirm proper motor rotation and unit operation.
- F. Test and adjust controls and features as necessary. Replace damaged and malfunctioning controls and equipment.
- G. Remove and replace malfunctioning units and retest, as required, and as specified above.
- H. Retest: Correct deficiencies identified by tests and observations and retest until specified requirements are met.
- I. Report results of tests and inspections in writing.

6.3 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain packaged engine generators.

END OF SECTION 263213