

INVITATION TO BID
AND
SPECIFICATIONS
FOR

Lift-Station Packaged Engine Generator/Automatic Transfer Switch Replacement

CITY OF ST. CHARLES
ILLINOIS
2016

SPECIFICATION #160519
BID OPENING: May 19, 2016

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SPECIFICATION #160519

BID OPENING : May 19, 2016

SECTION I

NOTICE TO BIDDERS

The City of St. Charles is seeking sealed bids from qualified Contractors to remove the existing Generac generator model 92A01213-9, Deere 6 cyl. 9.0L diesel engine and replace with a new up-to-date generator-set and transfer switch as specified. Contractors are asked to provide and install a stationary Lift-Station Packaged Engine Generator, for St. Charles Eastside Lift-Station located at 200 Devereaux Way, Charles, IL 60174.

Please bid the lowest price and best delivery on items listed. Advise what discount will be allowed for the existing Generac generator set. Terms and delivery data must be specified. Right is reserved to accept or reject bids on each item separately or as a whole, to reject any or all bids, to waive informalities or irregularities, to negotiate contract terms and options with the successful low bidder, and to contract for the bid to other than the lowest bidder in the best interest of the City of St. Charles.

A **MANDATORY pre-proposal meeting** will be held on-site at Eastside Lift-Station, 200 Devereaux Way, on Thursday May 5, 2016 at 10:00 a.m.

Prior to submitting their bids, it is the contractor's responsibility to check the City web-site, <http://www.stcharlesil.gov/bids-proposals> for important information on submitting bids or proposals and for any addenda associated with this Invitation to Bid.

SUBMITTAL OF PROPOSAL

Sealed proposals for the **Lift-Station Packaged Engine Generator Replacement** as described in the accompanying technical specification shall be received before 10:00a.m, Thursday, May 19, 2016 at the:

City of St. Charles City Hall, Council Chambers
Two East Main Street
St. Charles, IL. 60174
Attention: Mike Shortall, Purchasing Office

At that time and place the proposal will be publicly opened and read. Any proposal received subsequent to the time specified will be promptly returned to the Bidder unopened.

All sealed envelopes must be clearly marked for which bid they pertain to.

Interested Bidders shall "register" with Mike Shortall and provide name, phone number, and e-mail address.

Any questions shall be submitted to both Mike Burnett (Environmental Services) and Mike Shortall (Purchasing) via e-mail to the following e-mail address:

mburnett@stcharlesil.gov
mshortall@stcharlesil.gov

before Thursday, May 12, 2016.

Upon receipt of the questions the Bidder shall receive a reply e-mail acknowledging the receipt of the question. Response to the question shall be as soon as practical. Should the question result in a clarification that requires addenda, such addenda will be issued to all registered bidders as soon as practical.

Questions submitted after Thursday, May 12, 2016, shall not be acknowledged or answered. Bidder shall take all necessary steps to propose question prior to Thursday, May 12, 2016.

The City reserves the right to extend the due date. Should an extension be necessary, communication of such shall be e-mailed to all registered Bidders.

CITY OF ST. CHARLES

Mike Shortall

Purchasing & Inventory Control Manager

MWS:cjb

bid information\Bidstart e generator s

SECTION II
INFORMATION TO BIDDERS

1. **GENERAL CONDITIONS:**

- A. Bids shall be submitted in a sealed envelope, inserted in a larger sealed envelope. Both envelopes shall be clearly marked with the word "Bid", and the name of the project or subject of the bid. (Sec. 2.33.200A of the St. Charles Municipal Code). The outer envelope shall be addressed "Purchasing Manager, City of St. Charles, Two East Main Street, St. Charles, IL 60174." Include a return address on both envelopes. Bids received after the specified time and date will be returned unopened. Bids shall be on City of St. Charles bid form and shall be returned attached to the original specification sheets. Copies are not acceptable. **All bids submitted are binding for sixty (60) calendar days following the date of the bid opening.**
- B. All bid proposals must be signed with the firm name and by an authorized officer or employee of the company. One bid per bidder is allowed.
- C. The award of bids shall be made, after determination of the successful bidder by the City Council, by issuance of a City purchase order from the City of St. Charles purchasing manager to the successful bidder.
- D. The City of St. Charles reserves the right to waive minor specification deviations and reject any or all bids, and to accept the bid, which is in the opinion of the City Council, the lowest conforming bid from a responsible bidder as defined by state law and Sec. 2.33.230 of the St. Charles Municipal Code.
- E. All bids must be quoted on the basis of delivery to the City storeroom, 200 Devereaux Way in St. Charles, IL. The price shall be stated in units and bids made on each item separately. In case of conflict, the unit price shall govern. The City reserves the right to award the bid in aggregate or on individual items.
- F. All taxes, storage, handling and delivery costs incurred prior to receipt of the material by the City must be assumed by the successful bidder.
- G. All taxes, storage, handling and delivery costs incurred prior to receipt of the material by the City must be assumed by the successful bidder. The City of St. Charles is exempt from paying Illinois Use Tax, Illinois Retailers Occupation Tax, Federal Excise Tax, and Municipal Retailer's Occupation Tax.

The Illinois Department of Revenue tax exempt form can be obtained through the City of St. Charles Office of Purchasing.

The winning bidder will be required to complete the requested information included on this form. It is the purpose of this document to allow the winning bidder to purchase items for the bid project, tax free. It is the intent that the contractor will include the savings into the bid or quote.

Contractors will be responsible for utilizing this tax exempt form in a legal and responsible way. The contractor must sign a certification that the tax exempt form will be solely used for the purpose stated above. Abuse of the City's tax exempt status to avoid sales tax liability on other contractor purchases shall not be tolerated and may disqualify the contractor from being awarded future City contracts or business.

- H. If applicable, material is to be delivered on a flatbed trailer and ready to be unloaded from the side of the trailer without driving a forklift onto the trailer. Advance notice of 48 hours is required by calling 630-377-4421. Deliveries can be made to the City between the hours of 7:00 a.m. - noon and 12:30 p.m. - 3:30 p.m.
- I. Each bidder shall make an accurate statement in the proposal of the smallest number of calendar days in which delivery can be made after placement of the order.
- J. Any firm bidding this/these unit(s) must have a full service shop which includes parts and service mechanics capable of making any adjustments or repairs as may be required. The firm must also have service truck capabilities.
- K. Materials will be paid within 30 days of receipt/acceptance of same and receipt of invoice, or if a discount is allowed and is advantageous to the City, within five (5) days of receipt/acceptance of same and receipt of the invoice. Bids will be evaluated on both thirty (30) day and discount pricing.

REQUIRED _____ NOT REQUIRED X _____

- L. Travel time (incl. on-site repairs and/or pick up and delivery) is included within the labor or service warranty.

REQUIRED _____ NOT REQUIRED X _____

2. **MATERIALS:**

Only new, unused, first quality material and/or equipment shall be offered by the bidder.

3. **BID RESULTS:**
The bidder must supply a self-addressed, stamped envelope for obtaining bid results. **NO** bid results will be given by telephone.

4. **ADDENDUM**
Any interpretation of the specifications will be mailed to each bidder receiving a set of the bid documents. Bidders shall acknowledge receipt of such addendum by returning the addendum form.

5. **BID DEPOSIT**
A 10% bid deposit (certified check, cashier's check, or bank draft) or bid bond is required to accompany this bid. Failure to do so will eliminate the bid.

REQUIRED _____ NOT REQUIRED X _____

6. **PERFORMANCE & PAYMENT BONDS**

A performance bond in the amount of 100% of the bid submitted is required within ten (10) calendar days of acceptance of the bidder's proposal by the City.

The performance bond of the successful bidder shall have a minimum "A" rating as defined in Best's Key Rating Guide, be conditioned on the faithful performance of the requirements of the contract, and shall have as surety a corporate surety authorized to act as such in Illinois. The performance and payment bonds shall cover payment for all labor and material, and insure completion of the project. The bidder will be responsible for all claims for injuries to persons or damages to property or premises arising out of or in connection with his or her operations prior to the acceptance of the finished work or supplies, and that he or she will promptly make payments to all persons supplying him or her or them with labor or materials in the prosecution of the work provided for in the contract; and shall guarantee to indemnify and save the City and its officers and employees harmless from all costs, damages, and expenses arising out of or by reason of the bidder's failure to comply and perform the work and complete the contract in accordance with the specifications.

The performance and payment bonds shall be in conformance with the requirements of the Illinois Act in relation to bonds of bidders entering into contracts for public construction. (Illinois Compiled Statutes Ch. 30, Sec. 550/1, et seq.)

REQUIRED _____ NOT REQUIRED X _____

7. **GENERAL GUARANTY**

The bidder agrees to (a) hold the City, its agents, and employees harmless from liability of any nature or kind for the use of any copyrighted or un-copyrighted

composition, secret process, patented or unpatented, invention, article, or appliance furnished or used in the performance of the contract in which the bidder is not the patentee, assignee, licensee, or owner; (b) protect the City against latent defective material or workmanship and to repair or replace any damages or marring occurring in transit or delivery; (c) pay for all permits, licenses, and fees and give all notices and comply with all laws, ordinances, and rules of the City and State of Illinois; (d) indemnify City against all claims for personal injury, death, and/or property damage arising out of the project.

8. **ASSIGNMENT**

Assignment of this contract or any part thereof, or any funds to be received thereunder by the bidder shall be subject to the approval of the City of St. Charles.

9. **DEFAULT**

The contract may be cancelled or annulled by the purchasing manager in whole or in part by written notice of default to the bidder upon nonperformance or violation of contract terms. An award may be made to the next lowest bidder, or articles specified may be purchased on the open market similar to those so terminated. In either event, the defaulting bidder (or his surety) shall be liable to the City for costs to the City in excess of the defaulted contract prices. The bidder shall continue the performance of this contract to the extent not terminated under the provisions of this clause. Failure of the bidder to deliver materials or services within the time stipulated on his or her bid, unless extended in writing by the purchasing manager, shall constitute contract default.

10. **INSURANCE**

Detailed insurance requirements are included under City of St. Charles Certificate of Insurance Requirements.

The bidder **shall** secure and maintain in effect at all times, at his or her expense, insurance of the following kinds and limits to cover all locations of the bidder's operations in connection with work on his or her company's projects, naming the City of St. Charles as an additional insured. The bidder shall furnish Certificates of Insurance to the City Finance Department Purchasing Office before starting construction or within 10 days after the execution of the contract, whichever date is reached first. All insurance policies shall include a non-cancellation clause provision preventing cancellation without 30 days written prior notice to the City. In case of insurance cancellation, bidder shall obtain a new insurance policy in compliance with this paragraph prior to the effective date of cancellation.

Certificates of insurance must be completed on the ACORD 25-S form, with the cancellation clause revised and revisions initialed. An example is enclosed.

REQUIRED X NOT REQUIRED _____

For this **specific** project, the City of St. Charles is requiring a liability umbrella of \$ 5,000,000 (aggregate for this project).

REQUIRED X NOT REQUIRED _____

11. **CERTIFICATE OF COMPLIANCE**

All bidders are required to complete the Certificate of Compliance (attached) as per the Illinois Compiled Statutes Ch. 65, Sec. 11-42.1-1, which will be returned with the bid.

12. **HEALTH AND SAFETY ACT**

All work under this contract shall comply with the Occupational Safety and Health Act (OSHA) of 1975, and all other federal, state or local statutes, rules or regulations affecting the work done under the contract.

13. **PREVAILING WAGE RATE**

This contract calls for the construction of a "public work," within the meaning of the Illinois Prevailing Wage Act, 820 ILCS 130/.01 *et seq.* ("the Act"). The Act requires contractors and subcontractors to pay laborers, workers and mechanics performing services on public works projects no less than the current "prevailing rate of wages" (hourly cash wages plus amount for fringe benefits) in the county where the work is performed. The Department publishes the prevailing wage rates on its website at <http://labor.illinois.gov/>. The Department revises the prevailing wage rates and the contractor/subcontractor has an obligation to check the Department's web site for revisions to prevailing wage rates. For information regarding current prevailing wage rates, please refer to the Illinois Department of Labor's website. All contractors and subcontractors rendering services under this contract must comply with all requirements of the Act, *including but not limited to*, all wage requirements and notice and record keeping duties.

The successful bidder and each subcontractor shall submit monthly, in person, by mail, or electronically, a certified payroll to the City of St. Charles. The certified payroll shall consist of records of all laborers, mechanics, and other workers employed by them on the project. The records shall include each worker's name, address, telephone number (when available), the last four digits of the worker's social security number, classification or classifications, the hourly wages paid in each period, the number of hours worked each day, and the starting and ending times of work each day. The certified payroll shall be accompanied by a statement signed by the bidder or subcontractor which avers that:

A. Such records are true and accurate;

B. The hourly rate paid to each worker is not less than the general prevailing rate of hourly wages required; and

- C. The bidder or subcontractor is aware that filing a certified payroll that he or she knows to be false is a Class B misdemeanor.

The City of St. Charles is required to keep the certification records submitted for a period of not less than five years. Furthermore, these records, except an employee's address, telephone number, and social security number, shall be made available in accordance with the Freedom of Information Act.

14. **EXECUTION OF CONTRACT, INSURANCE, & PERFORMANCE & PAYMENT BONDS**

The successful bidder, within ten (10) business days after acceptance of the bidder's offer by the City, shall execute all requested contract documents, supply satisfactory evidence of required insurance, and furnish a satisfactory performance and payment bonds when required by the bid documents. In the event that the bidder fails to furnish required documents, insurance, and performance and payment bonds within ten (10) business days after acceptance of the bidder's offer by the City, then the City's acceptance of the offer shall automatically terminate, and the bid deposit of the bidder shall be retained by the City as reimbursement for administrative costs.

15. **RELEASE OF BID DEPOSITS**

Within a reasonable time after the bid opening, bid deposits of all except the three lowest responsible bidders will be released. The remaining deposits will be released after the successful bidder has executed the contract documents and furnished evidence of the insurance and bonds required by the bid documents.

16. **EQUAL OPPORTUNITY EMPLOYER**

The City of St. Charles is an equal opportunity employer, and all bidders are required to be equal opportunity bidders as defined by all applicable state and federal laws and regulations.

17. **VETERANS PREFERENCE**

The City of St. Charles, per Illinois Compiled Statutes Ch. 330, par. 55/1-55/3, gives preference to veterans for public works contracts, should a tie bid arise between local OR non-local bidders.

18. **CERTIFICATE OF NON-DISQUALIFICATION**

All bidders are required to submit a completed Certificate of Non-Disqualification (attached), as required under Illinois Compiled Statutes, Ch. 720, Sec. 33 E-11.

19. **PROVISIONS OF ST. CHARLES MUNICIPAL CODE**

All bids and contracts shall be in accordance with Title 2, Ch. 2.33 of the City of St. Charles Illinois Municipal code, as from time to time amended, which shall take precedence over and control all aspects of this contract, and which are incorporated herein by reference.

20. **SURVIVAL**

The provisions hereof shall survive and shall not merge with the resulting purchase order or contract awarded to the successful bidder, but shall be additional terms thereof; and the submission of a bid shall be deemed as acceptance of these terms.

21. **CERTIFICATE OF COMPLIANCE WITH SAFETY STANDARDS**

All bidders are required to submit a completed Certificate of Compliance with Safety Standards (attached).

22. **CERTIFICATE OF COMPLIANCE WITH PUBLIC ACT 87-1257 OF THE ILLINOIS HUMAN RIGHTS ACT**

All bidders are required to submit a completed Certificate of Compliance with Public Act 87-1257 of the Illinois Human Rights Act (attached).

23. **WAIVERS OF MECHANICS LIEN**

A. With each application for payment, submit waivers of mechanics liens from the bidder, subcontractors, and suppliers for the construction period covered by the current application. Payment will not be released until the bidder has supplied the City with the waiver of liens.

1. Submit partial waivers on each item for the amount requested, prior to deduction for retainage, on each item.
2. When an application shows completion of an item, submit final or full waivers.
3. The City reserves the right to designate which entries involved in the work must submit waivers.
4. Waiver Delays: submit each application for payment with the bidder's waiver of mechanics lien for the period of construction covered by the application.

A. Initial application for payment: administrative actions and submittals, that must precede or coincide with submittal of the first application for payment, include the following:

1. List of subcontractors.
2. List of principal suppliers and fabricators.
3. Schedule of values.

REQUIRED _____ NOT REQUIRED X _____

**CERTIFICATE OF NON-DISQUALIFICATION
UNDER ILLINOIS COMPILED STATUTES, CH. 720, SEC. 33E-11**

The undersigned, upon being first duly sworn, hereby certifies to the City of St. Charles, Kane and DuPage Counties, Illinois, that _____
_____(bidder) is not barred from contracting with any
unit of State or local government, as a result of a violation of Ch. 720, Sec. 33E-11 of the
Illinois Compiled Statutes.

Name of Bidder

By: _____

State of _____),
County of _____) ss.

Subscribed and sworn to
before me this _____ day
of _____, _____.

Notary Public

NOTE TO BIDDER: Anyone who makes a false statement, material to this Certification, commits a Class 3 Felony under Illinois Compiled Statutes, Ch. 720, Sec. 33E-11 (b).



Illinois Department of Revenue

Office of Local Government Services
Sales Tax Exemption Section, 3-520
101 W. Jefferson Street
Springfield, IL 62702
217 782-8881

January 2, 2015

CITY OF ST CHARLES
DIRECTOR OF FINANCE
TWO EAST MAIN ST
ST CHARLES IL 60174

Effective January 1, 2015, we have renewed your governmental exemption from payment of the Retailers' Occupation Tax, the Service Occupation Tax (both state and local), the Use Tax, and the Service Use Tax, as required by Illinois law.

We have issued the following new tax exemption identification number:

E9996-0680-07

to

CITY OF ST CHARLES

of

ST CHARLES, IL

The terms and conditions governing use of your exemption number remain unchanged.

Office of Local Government Services
Illinois Department of Revenue

Issued To: _____

Company: _____

Date Issued: _____

Project: _____

Dates Valid: _____


Christopher A. Minick, Director of Finance



City of St. Charles Certificate of Insurance Requirements

Contractors shall carry all insurance coverage required by law. In addition, the Contractor shall carry, at its own expense, at least the following insurance coverage with a duly licensed and registered insurance company in the State of Illinois having a minimum A.M. Best rating of A-VI:

- (a) Workers' Compensation & Occupational Diseases Insurance – Statutory amount for Illinois
- (b) General Liability Insurance:
 - 1) Bodily injury, with limits of not less than \$1,000,000 each occurrence/
\$2,000,000 aggregate;
 - 2) Property damage, with limits of not less than \$1,000,000 each occurrence/
\$2,000,000 aggregate;
 - 3) Contractual insurance – broad form, with limits of not less than \$1,000,000 each occurrence/\$2,000,000 aggregate.
- (c) Automotive Liability Insurance:
 - 1) \$1,000,000 each occurrence/
\$2,000,000 aggregate;
 - 2) Property damage, with limits of not less than \$1,000,000 each occurrence/
\$2,000,000 aggregate. Property damage insurance coverage shall include non-owned, hired, leased, or rented vehicles, as well as owned vehicles.
- (d) Umbrella liability \$5,000,000.



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- (e) Contractor's insurance policy shall name City as an additional insured on the General Liability, Automotive Liability and Excess Liability insurance policies. The insurance coverage shall be written with insurance companies acceptable to City. All insurance premiums shall be paid without cost to City. The Contractor shall furnish to City a Certificate of Insurance attesting to the respective insurance coverage for the full contract term. Contractor shall submit satisfactory proof of insurance simultaneously with the execution of the contract.

 - (f) All insurance policies shall provide that the City shall receive written notice of cancellation or reduction in coverage of any insurance policy thirty (30) days to the effective date of cancellation.

SECTION III PART II

City of St. Charles Environmental Services Lift-Station Packaged Engine Generator Technical Specification

SUMMARY

The City of St. Charles is seeking sealed bids from qualified Contractors to remove the existing Generac generator model 92A01213-9, Deere 6 cyl. 9.0L diesel engine and replace with a new up-to-date generator-set and transfer switch as specified herein. Contractors are asked to provide and install a stationary Lift-Station Packaged Engine Generator, for St. Charles Eastside Lift-Station located at 200 Devereaux Way, Charles, IL 60174. The new generator shall supply power to the emergency panel using only the automatic transfer switch (ATS). The existing Generac Packaged Engine Generator, above ground 470 gallon fuel tank and ATS will become the property of the Bidder and the value discounted from the cost of the new equipment.

This is a **TURN-KEY** project and bid shall include all material, equipment, labor and supervision for removal of existing Generac Packaged Engine Generator, installation and full operation of the new equipment, including any necessary concrete slab, proper mounting hardware, sound isolators and all electrical including but not limited to conduit, wiring, bonding etc. in accordance with local, state and National Electrical Codes (NEC) and manufactures recommendations.

The existing generator is rated 375.8 Amp, Three-Phase 277/480VAC.

PART 1.0 GENERAL

- 1.0 This section includes the performance specification for providing the back-up power generation for a lift station, and includes, but is not limited to, a packaged engine generator system, weather proof housing, exhaust silencer and fittings, fuel system, control panel, battery and charger, automatic transfer switch, and appurtenances, connections and supplies required to provide a fully functioning system.
- 1.2 The following references shall be followed for the design of the emergency power generation system.
 - A. ANSI/NEMA 250 - Enclosures for electrical equipment (1000 volts maximum)
 - B. ANSI/NEMA MG 1 - Motors and generators
 - C. ANSI/NFPA - National electrical code
 - D. NFPA 110 Level 1
 - E. ANSI/NFPA 99 - Health care facilities
 - F. ANSI/NEMA AB 1 - Molded case circuit breakers

SECTION III PART II

- G. NEMA ICS 1 - General Standards for Industrial Control and Systems.
- H. NEMA ICS 2 - Standards for Industrial Control Devices, Controllers, and Assemblies.
- I. NEMA ICS 6 - Enclosures for Industrial Controls and Systems.

1.3 The following documents are required before the City will accept the system for ownership and maintenance.

- A. Submit shop drawings showing plan and elevation views with overall and interconnection point dimensions, fuel consumption rate curves at various loads, ventilation and combustion requirements, and electrical diagrams including schematic and interconnection diagrams.
- B. Submit product data showing dimensions, weights ratings, interconnection points, and internal wiring diagrams for engine, generator, control panel, battery, battery rack, battery charger, exhaust silencer, vibrator isolators, fuel system, radiator, and remote annunciator.
- C. Submit record of system load test.
- D. Accurately record location of engine generator and mechanical and electrical connections.
- E. Submit operation and maintenance data upon delivery of the emergency generator.
- F. Include instructions for normal operation, routine maintenance requirements, service manuals for engine and fuel system, oil sampling and analysis for engine wear, and emergency maintenance procedures.
- G. Provide five-year warranty.
- H. Furnish service and maintenance of portable emergency generator system for two years from date of delivery completion.
- I. Provide two additional sets of each fluid (except fuel), oil, and air filter element required for the engine generator system.

SECTION III

PART II

- J. Furnish one set of tools for preventive maintenance of the engine generator system. Package tools in an adequately sized metal box that is fitted for pad lock and secured to the site.

- K. List of special tools, maintenance materials, and replacement parts.

1.4 Miscellaneous

- A. Developer/Contractor are responsible for providing a complete system, including all connections of the generator set to the lift station control panel. Developer/Contractor is also responsible for making all arrangements with other utilities including natural gas or electricity.

PART 2 PRODUCTS

- 2.0 The generator shall be Generac, Caterpillar or Kohler power system. All control panels, breakers, transfer switches and other appurtenances shall be provided by the same manufacturer or authorized distributor and will be guaranteed to operate with the system. All parts of the system shall be covered under the warranty.

2.1 ENGINE

- A. Type: Water-cooled inline or V-type, generator drive diesel internal combustion engine, operating at no more than 1800 rpm. The diesel engine shall be provided with a UL Listed, double walled, fuel tank large enough to provide 24-hour operation at full load.

- B. The engine shall have a rating sufficient to operate at 10 percent overload for one hour at specified elevation and ambient temperature limits.

- C. The engine shall have an electronic governor.

- D. The generator shall be capable of delivering full load amps with up to 5% total harmonic distortion.

- E. Safety devices: engine shutdown on high water temperature, low oil pressure, over speed, and engine overdrank. Limits as selected by manufacturer.

- F. Engine Accessories: fuel filter, lube oil filter, intake air filter, lube oil cooler, fuel transfer pump, fuel priming pump, gear-drive water pump.

SECTION III

PART II

Include fuel pressure gage, water temperature gage, and lube oil pressure gage on engine-generator control panel.

- G. Mounting: provide unit with suitable spring-type vibration isolators.

2.2 GENERATOR

- A. Generator: ANSI/NEMA MG 1; three phase, four pole, re-connectible brushless synchronous generator with brushless exciter.
- B. Insulation: ANSI/NEMA MG 1, Class F.
- C. Temperature Rise: 130 degrees C standby.
- D. Enclosure: ANSI/NEMA MG 1; open drip proof

2.3 AUTOMATIC TRANSFER SWITCH (ATS)

- A. Provide a 600 Amp Rated Current automatic transfer switch that is recommended by the manufacturer of the generator set. The ATS shall be rated as UL 1008
- B. Indicating lights: mount in cover of enclosure to indicate NORMAL SOURCE AVAILABLE, ALTERNATE SOURCE AVAILABLE, SWITCH POSITION.
- C. Test switch: Required.
- D. Return to normal switch: mount in cover of enclosure to initiate manual transfer from alternate to normal source.
- E. Transfer switch auxiliary contacts: 1 normally open: 1 normally closed.
- F. Alternate source monitor: monitor alternate source voltage and frequency; inhibit transfer when voltage is below 85 percent or frequency varies more than 3 percent from rated nominal voltage.
- G. Provide adjustable time delay on transfer and re-transfer.

2.4 ACCESSORIES

- A. Diesel Fuel System: The above ground fuel storage tank shall provide volume sufficient for 24-hour consumption at full load. Tank shall be

SECTION III

PART II

UL Listed, double walled, fuel tank used as the base of the generator with fuel gauge, overfill protection, stage II vapor recovery, per DEP and EPA requirements. Provide low-level fuel indicator. The painting shall be 100 % shop applied as follows.

Organic Zinc-rich/Urethane/Urethane Coating System

Surface Preparation: SSPC-SP6 Commercial Blasting Cleaning

Prime Coat: Series 90-97 Tnemec-Zinc at 2.5 to 3.5 mils
DFT

Intermediate and Finish: Series 1075 Endura-Shield-Color at 2.0 to 3.0 mils DFT each coat Minimum Total DFT: 7.0 mils

- C. Batteries: Heavy duty, diesel starting type lead-acid storage batteries. Match battery voltage to starting system. Include necessary cables and clamps.
- D. Battery charger: current limiting type designed to float at 2.17 volts per cell and equalize at 2.33 volts per cell. Include overload protection. Full wave rectifier, DC voltmeter and ammeter, and 120 volts AC fused input. Provide enclosure to meet ANSI/NEMA 250, Type 1 requirements.
- E. Generator Enclosure: Manufacturers standard aluminum enclosure designed to withstanding 150 MPH wind speed, Exposure C, Importance Factor 1.15, Partially Enclosed Condition in accordance with the methodology contained in A.S.C.E. 7-98. Drawings sealed by a professional engineer shall be provided to the City
- F. Enclosure shall also be designed with removal louvers for servicing generator. Generator enclosure to house battery tray, battery charger, generator circuit breakers. The generator should be designed to prevent the intrusion of rain from driving rain (rain in high winds). All electrical controls shall be contained within NEMA 4X rated enclosures.
- G. Exhaust Silencer: critical type silencer, with muffler companion flanges and flexible stainless steel exhaust fitting, suitable for horizontal orientation, size in accordance with engine manufacturer's instructions. Muffler to be installed outside generator enclosure.
- H. Engine-Generator Control Panel: ANSI/NEMA 250, Type 1 generator mounted control panel enclosure with engine and generator controls

SECTION III

PART II

and indicators. Include provision for padlock and the following equipment and features:

- a. All indications for protection and diagnostics according to NFPA 110 Level 1, including remote and local annunciation
- b. Frequency Meter: 45-65 Hz range, 3-1/2 inch (89 mm) dial
- c. AC Output Voltmeter: 3-1/2 inch (89 mm) dial, 2 percent accuracy, with phase Page 4 of 4 Lift Station Emergency Generator Rev 1.0 SSRUS 7/28/04 selector switch.
- d. AC Outlet Ammeter: 3-1/2 inch (89 mm) dial, 2 percent accuracy, with phase selector switch
- e. Output voltage adjustment
- f. Push-to-test indicator lamps, one each for low oil pressure, high water temperature, over speed, and overdrank
- g. Engine start/stop selector switch
- h. Engine running time meter
- i. Oil pressure and water temperature gages
- j. Auxiliary Relay: 3 PDT, operates when engine runs, with contact terminals prewired to terminal strip
- k. Provision for regularly scheduled starting and operation of engine generator for maintenance purposes

2.5 REMOTE COMMUNICATIONS

- A. Remote Alarm Contacts: Pre-wire SPCT contacts to terminal strip for remote alarm functions required by ANSI/NFPA 99
- B. All alarm conditions shall be made available for connection to control unit at the generator site for transmission to a central communication facility. Additionally, all level monitored by the microprocessor shall also be made available through 4-20 ma signals or other compatible method.

SECTION III

PART II

- C. The supplier of the generator set is responsible for labeling where these signals are available, but not for connecting them to the local monitoring system.

PART 3 INSTALLATION

- 3.0 Installation of the generator shall be in compliance with Federal, State and local building codes. Install generator in accordance with generator

manufactures recommendations on 6" thick concrete pad. Pad to be 3' larger than generator on all sides.

3.1 TESTING

- A. Testing will be performed.
- B. Provide full load test utilizing portable test bank, for two hours minimum.
- C. During test, record the following at 20 minute intervals:
 - 1) Kilowatts
 - 2) Amperes
 - 3) Voltage
 - 4) Coolant temperature
 - 5) Ambient temperature
 - 6) Frequency
 - 7) Oil pressure
- D. Test alarm and shutdown circuits by simulating conditions.
- E. Manufacturer's representative should be present to prepare, start, test, and adjust systems. Adjust generator output voltage and engine speed.

SECTION IV

PROPOSAL FORM

I propose to furnish the City of St. Charles Packaged Engine Generator/Automatic Transfer Switch Replacement described in the preceding section, in accordance with the attached conditions and specifications for the unit cost of \$ N/A /EA.

TOTAL COST \$ _____

UNIT COST IF CITY PAYS WITHIN 5 DAYS UPON RECEIPT/ACCEPTANCE

\$ NOT APPLICABLE /EA

TOTAL COST (IF PAID WITHIN 5 DAYS): \$ NOT APPLICABLE /EA

ALL PRICES ARE FIRM WITH NO ESCALATOR.

By submission of this bid I certify that the bid has been arrived at independently and has been submitted without collusion with any vendor of materials, supplies, or equipment of the type described in the preceding section.

Shipment can be made F.O.B. City of St. Charles _____ weeks after receipt of Purchase Order.

MANUFACTURER: NOT APPLICABLE

COMPANY

ADDRESS

CITY, STATE, ZIP

TELEPHONE

SIGNATURE OF AUTHORIZED AGENT

MWS:cjb