ADVERTISEMENT FOR BIDS

A request for proposals for WTP Flocculators and Flash Mixer Replacements will be sent out on **Thursday, March 5, 2026**, and will be received by the City of Statesville at 227 S. Center Street, Basement, Statesville, NC 28677 at or before **2:00 p.m.** EST on **April 10, 2026**, at which time and place the bids shall be publicly opened and read. Minimum of (3) bids must be received in order to open all bids.

Historically Underutilized Businesses
Pursuant to general statute 143-48 and executive order #150, the City of Statesville invites and encourages participation in this procurement process by businesses owned by minorities, women, disabled, disabled business enterprises and non-profit work centers for the blind and severely disabled.

The website address to view and download the RFP documentation is:
www.statesvillenc.net/bidpostings

The City of Statesville reserves the right to reject any or all bids and to accept any bid which is deemed to be in the best interest of the City of Statesville. For any questions regarding this request, contact Harry Hull, Public Utilities Supervisor, at 704-878-3441 or email hhull@statesvillenc.net.

FACILITY TOUR

All prospective bidders must attend the mandatory Pre-Bid tour of the facility to view the current set-up and meet with the city staff on March 24, 2026 at 9:00 am. Address is 232 Pump Station Road, Statesville, NC 28677.

B. Denyce Cole
Purchasing agent

Published: March 9, 2026

	City of Statesville 227 S Center Street Statesville, NC 28677	**REQUEST FOR PROPOSAL (RFP): Flocculators and Flash Mixer Replacement**
		SEALED BIDS DUE DATE: 2 pm. EST **Friday, April 10, 2026**
		Department: Public Utilities Technical Inquiries: Harry Hull, (704) 878-3441
		Email: hhull@statesvillenc.net

NOTICE TO VENDOR

The City of Statesville is accepting bids from qualified utility contractors for the installation of Flocculators and Flash Mixer.

EXECUTION

In compliance with this Request for Proposal, and subject to all the conditions herein, the undersigned offers and agrees to provide installation services for the price offered herein. The proposer certifies that the proposal is made in good faith and without collusion with any person making a proposal or with any officer or employee of the City.

Proposals are to be signed by an officer of the Proposer authorized to bind the submitter to its provisions. Failure to manually execute/sign proposal prior to submittal shall render proposal invalid. Late proposals are not acceptable.

VENDOR:		PHONE NUMBER:
TYPE OR PRINT NAME & TITLE OF PERSON SIGNING:		FAX NUMBER:
AUTHORIZED SIGNATURE:	DATE:	E-MAIL:

ACCEPTANCE OF PROPOSAL

The successful bidder for this service will be required to execute a contract with the City of Statesville. The bidder may not begin work and a Purchase Order WILL NOT be issued until the bidder has fully executed the contract document, Certificate of Insurance has been submitted and approved, and the performance and payment bonds have been submitted and approved.

FACILITY TOUR

All prospective bidders must attend the mandatory Pre-Bid tour of the facility to view the current set-up and meet with the city staff on March 24, 2026 at 9:00 am. Address is 232 Pump Station Road, Statesville, NC 28677.

INSTRUCTIONS FOR OFFERORS

1. **READ, REVIEW AND COMPLY:** It shall be the offeror's responsibility to read, review and comply with all requirements specified herein.
2. **NOTICE TO OFFERORS:** By execution and delivery of this document, the offeror agrees that any additional terms and conditions, whether submitted purposely or inadvertently, shall have no force or effect. All bids must be firm and not subject to increase, unless specified within the provisions of this RFP and mutually agreed upon by the City and the bidder.
3. **TIME FOR CONSIDERATION:** Unless otherwise indicated, the offer shall be valid for 90 days from the date of Notice of Award following City Council approval of the contract.
4. **CLARIFICATIONS/INTERPRETATIONS:** Any and all questions regarding this document must be addressed to the point-of-contact named on the cover sheet of this document.
5. **ACCEPTANCE AND REJECTION:** The City reserves the right to waive minor irregularities or minor errors in the proposal which appear to have been made through inadvertence, provided such irregularities or errors so waived are corrected on the proposal prior to its acceptance by the City. The City also reserves the right to reject any and all proposals and to accept any proposal which is deemed to be in the best interest of the City.
6. **HISTORICALLY UNDERUTILIZED BUSINESSES:** Pursuant to General Statute 143-48 and Executive Order #150, The City of Statesville invites and encourages participation in this procurement process by businesses owned by minorities, women, disabled, disabled business enterprises and non-profit work centers for the blind and severely disabled.
7. **EVALUATION CRITERIA:** Qualified proposals will be evaluated and acceptance may be made of the best and lowest proposal most advantageous to the City of Statesville as determined upon consideration of such factors as: the quality of the proposal offered; experience, references, and qualifications of the contractor; capacity to perform the contract; methodology, operation and implementation plan; customer service plan; the substantial conformity with the specifications and other conditions set forth in the proposal; the suitability of the proposal for the intended use; the related services needed; the date or dates of delivery and performance; overall proposed costs for the turnkey project, and such other factors deemed by the City of Statesville to be pertinent or peculiar to the purchase in question. The City of Statesville reserves the right to make partial, progressive or multiple awards: where it is advantageous to award separately by items; or where more than one supplier is needed to provide the contemplated requirements as to quantity, quality, delivery, service, other factors deemed by the City of Statesville.
8. **TAXES:** Sales tax should not be included in any bids and will not be included on City Purchase Orders. Sales tax should be included on and will be paid from vendor invoices. Bids shall not include any Federal Excise tax.
9. **INSURANCE:**
   The successful contractor will provide all proper safeguards including the City of Statesville safety rules and policies; and shall assume all risks incurred in performing services provided. Contractor shall maintain the following minimum insurance coverages and will provide Certificate of Insurance to the City naming the City of Statesville as additional insured. Failure to keep insurance in force will be cause for the City of Statesville to immediately cancel contract.

10. **GENERAL CONTRACTOR'S LICENSE REQUIRED:** Proposals will be received only from Bidders licensed under the North Carolina "Act to Regulate the Practice of General Contracting". Contractors and Subcontractors, in order to perform public work in the State of North Carolina, are required to hold a State of North Carolina Contractor's License(s) of the class required to perform the specified work. **Copy of Contractor's license shall be submitted with your Proposal.**

11. **SUBCONTRACTORS:** Each Bidder is required to list with his bid all Subcontractors. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each subcontractor. If the City, after due investigation, has reasonable objection to any proposed subcontractor, the City may, before the Notice of Award is given, request the apparent Successful Bidder to submit an acceptable substitute without an increase in proposal price.

12. **STAGING SITE, WAREHOUSE SPACE & METER DISPOSAL:** The Bidder agrees that, if their proposal is accepted. The Bidder is expected to have a factory authorized service center within 2 hours driving time of the project location that is capable of performing a complete repair of the flocculator and flash mixer units.

13. **BID BOND:** No proposal shall be considered or accepted by the City of Statesville unless, at the time of its filing, the proposal shall be accompanied by a deposit with the City of Statesville 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 Statesville 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.**

14. **PERFORMANCE AND PAYMENT BONDS:** Prior to commencement of work, the successful bidder will be required to furnish a one hundred percent (100%) Performance and Payment Bond 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.

15. **PERFORMANCE PERIOD, BASIS OF PAYMENT:** The City of Statesville requires project completion within twelve (12) months from and including Commencement date. The project completion period shall be extended to the extent of any delay that is caused by the City, its agents, or employees. Final, lump sum payment will be made upon delivery and receipt of invoice.

16. **TERMS AND CONDITIONS:** By bidding of these items, vendors, contractors, and/or subcontractors affirm they have read and accept our Purchasing Terms and Conditions. Our Terms and Conditions can be found at ***www.statesvillenc.net/vendors***.

17. **SUBMITTING REQUEST FOR PROPOSAL:** **SEALED BIDS** should be mailed, or hand delivered to:

City of Statesville
Public Utilities Division
Attn: Harry Hull,
227 S Center St., Basement
Statesville, NC 28677

On or before 2:00 p.m. EST on **Friday, April 10, 2026**. Late proposals will not be accepted. **Five 5% Bid bond shall be enclosed in a separate sealed envelope with "Bid Bond" printed on the envelope.**

Minimum of 3 bids must be received in order to open bids. A bid that does not include a bid bond cannot be counted toward the 3-bid minimum requirement.

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SCOPE OF WORK

STATESVILLE WTP FLOCCULATORS AND FLASH MIXER REPLACEMENT

FLOCCULATORS AND FLASH MIXER SPECIFICATIONS

PART 1 – GENERAL

1.01 THE REQUIREMENT (SCOPE OF WORK)

A. Provide all labor, materials, equipment, anchorage systems, and incidentals necessary for the installation, testing, and placing into operation twenty (20) flocculators, one (1) flash mixer, and twenty (20) NEMA 4X VFDs and one (1) VFD control panel in NEMA 4x Enclosure, and associated appurtenances at the Statesville Water Treatment Plant.

B. For the purposes of this Section, "Manufacturer" shall mean the designer, manufacturer, supplier and tester of the replacement equipment. The Manufacturer shall be responsible for the design, coordination, testing, and satisfactory performance of all the components. Inclusion of a specific manufacturer's name in the Specifications does not mean that the specific manufacturer's standard product will be acceptable. Specified manufacturer's or other manufacturer's standard product shall be modified as required to meet the Specifications.

C. The Manufacturer shall have unit responsibility for coordinating the proper equipment mounting system to ensure stable equipment operation. The Contractor shall install, anchor, test, and align the equipment such that vibration levels are within Manufacturer's recommended tolerances. The Contractor shall provide all supports, stiffeners, etc., that may be required to provide systems that operate reliably and within vibration limits specified by the Manufacturer.

D. All equipment shall be suitable for continuous operation (24 hours per day, 365 days per year).

E. The Manufacturer shall have a factory authorized service center within 2 hour driving time of the project location that is capable of performing a complete repair of the flocculator and flash mixer units. The service center should have adequate equipment, inventory and personnel to perform repairs and rebuilds to the equipment. The service center shall have complete push-pull equipment and crews which can be onsite within 24 hours of notification. Service centers without in-house push-pull capabilities will not be acceptable.

1.02 ACTION/INFORMATIONAL SUBMITTALS

A. Provide submittals for the replacement equipment, including dimensional drawings, general arrangement drawings, and necessary component detail drawings.

1.03 CLOSEOUT SUBMITTALS

A. Submit warranty documentation.

B. Operation and Maintenance (O&M) manuals.

1.04 QUALITY ASSURANCE SUBMITTALS

A. Installation list demonstrating a minimum 20 years of experience producing substantially similar equipment and demonstrating evidence of the number of installations in satisfactory operation for at least five years in the continental United States. At least three installations in the last five years shall be of similar size or larger than specified application.

B. Submit evidence of the nearest available qualified service center location and provide contact information for the service center.

C. Name, contact information and qualifications of the installation contractor. Contractor must demonstrate a minimum 20 years of experience installing substantially similar equipment and demonstrate evidence of at least 10 similar installations in satisfactory operation in the last five years in North Carolina. The installation contractor must possess a Public Utilities Contractor's License in North Carolina.

1.05 WARRANTY

A. Warranty shall be 2 year non-prorated on the equipment and installation, and shall commence on the day of successful startup and warranty validation from the Manufacturer.

B. Warranty shall also cover removal and reinstallation costs, including equipment, as required to repair any defects during the warranty period.

PART 2 – PRODUCTS

2.01 GENERAL

A. Provide complete mixer assemblies for flocculation and flash mixing service as specified herein.

B. Equipment shall be designed, manufactured, tested, and supplied as a coordinated system by a single manufacturer having demonstrated experience in municipal water treatment applications.

2.02 FLOCCULATOR REQUIREMENTS

A. A total quantity of Twenty (20) flocculators are required.

Each flocculator assembly shall consist of a heavy duty gearbox, electric motor connected by a flexible coupling, baseplate, mixing shaft, and mixing impeller.

B. The mixing impeller shall be a low shear "hydrofoil" design with a power number less than 0.32. The maximum allowable tip speed of the impeller shall be 11.0 ft/sec. The impeller shall be constructed of 316SS material with the blades bolted to the hub and with the hub fixed to the shaft with a hook key and set screws for maximum security.

The maximum combined stress in any impeller component shall not exceed 11,000 psi under maximum operating loads. The shaft/impeller design shall be such that its operating speed shall not exceed 70% of its first lateral critical speed. Upon request, stress and critical speed calculations supporting shaft and impeller design are to be supplied with the submittal package.

C. The mixer gear reducer must be built in accordance with current AGMA standards. The reducer shall be a vertical parallel shaft design with speed reduction being accomplished by use of helical gearing with no less than 97% efficiency per gear mesh. The maximum ratio for any one gear set will be 6.2:1. Housing shall be a two piece cast iron design consisting of a base and cover, precision bored and doweled to maintain accurate alignment. The mixer gear drive shall be mounted on a pedestal base a minimum of 10-inches above the tank deck with the output shaft rigid coupling below the base of the mixer to allow the for disassembly of the coupling above the tank deck.

The drive shall be equipped with a dipstick and/or an oil level sight glass to check the oil level. The drives must incorporate a drywell feature in the output area to eliminate the possibility of oil leakage down the shaft.

Selected bearings may be grease lubricated provided they include a high quality seal to retain the grease. The output shaft shall employ a three bearing support system, two taper roller bearings and a lower self-aligning double row spherical roller bearing to provide a wide bearing span for mixer shaft support and to help isolate shaft bending forces caused by fluid action, from the low speed gear mesh.

The drive's minimum AGMA service factor, based on motor nameplate horsepower, will be 1.5 or more. Upon request, documentation supporting gear ratings are to be supplied with the submittal package. Thermal ratings shall be calculated for continuous operation per AGMA standards based on a maximum sump temperature of 200°F and an ambient temperature of 100°F.

All drive bearings shall be of the antifriction type, ball or roller bearings. All bearings within the drive, including the output shaft bearings, shall have a minimum L-10 bearing life of 80,000 hours when operating at the calculated brake motor horsepower at the designed speed. Documentation supporting bearing lives, upon request, will be supplied with the submittal package.

D. The mixing shaft shall be coupled to the gearbox output shaft by means of a rigid flanged coupling. Mating coupling faces shall have a male/female piloted connection for accurate concentricity and shall not require match marking for alignment.

The mixing shaft and coupling half shall be constructed of 316SS material. The shaft shall be designed such that the maximum combined stress does not exceed 9,000 psi under maximum operating loads. It shall be of overhung design – the use of underwater steady bearings is not permitted. Shaft straightness and rigid coupling squareness must be such that the maximum total indicated runout at the lower end of the shaft does not exceed 0.125" for every 10' of shafting, as measured when turning over by hand.

E. The electric motor shall be rated for continuous duty in a humid corrosive environment. Insulation shall be class F with a Class B temperature rise at 40o C ambient at 1.0 service factor. Service factor will be 1.15.

The motor shall be squirrel cage induction type for operation on 3 PH, 60 HZ, 460 V. Synchronous speeds shall be 1800/1200 or 900 rpm. All motors shall be designed with applicable IEEE, NEMA, and ANSI standards.

Motors shall be connected to the reducer's input shaft with an easily accessible torsionally resilient flexible coupling protected by an OSHA coupling guard.

F. The spare parts to be supplied are one set of bearings, oil seals and gaskets per mixer.

2.03 FLASH MIXER REQUIREMENTS

A. A total quantity of ONE (1) flash mixer is required.

Each mixer assembly shall consist of a heavy-duty gearbox, electric motor connected by a flexible coupling, baseplate, mixing shaft and mixing impeller.

B. The impeller shall be constructed of 316SS material with the blades bolted to the hub and with the hub fixed to the shaft with a hook key and set screws for maximum security. An extended keyway shall be provided which will allow vertical adjustment of the impeller +/- 12" in 3" increments.

The maximum combined stress in any impeller component shall not exceed 11,000 psi under maximum operating loads. The shaft/impeller design shall be such that its operating speed shall not exceed 70% of its first lateral critical speed. Upon request, stress and critical speed calculations supporting shaft and impeller design are to be supplied with the submittal package.

C. The mixer gear reducer must be built in accordance with current AGMA standards. The reducer shall be a vertical parallel shaft design with speed reduction being accomplished by use of helical gearing with no less than 97% efficiency per gear mesh. The maximum ratio for any one gear set will be 6.2:1. Housing shall be a two piece cast iron design consisting of a base and cover, precision bored and doweled to maintain accurate alignment. The mixer gear drive shall be mounted on a pedestal base a minimum of 10-inches above the tank deck with the output shaft rigid coupling below the base of the mixer to allow the for disassembly of the coupling above the tank deck.

The drive shall be equipped with a dipstick and/or an oil level sight glass to check the oil level. The drives must incorporate a drywell feature in the output area to eliminate the possibility of oil leakage down the shaft.

Selected bearings may be grease lubricated provided they include a high quality seal to retain the grease. The output shaft shall employ a three bearing support system, two taper roller bearings and a lower self-aligning double row spherical roller bearing to provide a wide bearing span for mixer shaft support and to help isolate shaft bending forces caused by fluid action, from the low speed gear mesh.

The drive's minimum AGMA service factor, based on motor nameplate horsepower, will be 1.5 or more. Upon request, documentation supporting gear ratings are to be supplied with the submittal package. Thermal ratings shall be calculated for continuous operation per AGMA standards based on a maximum sump temperature of 200°F and an ambient temperature of 100°F.

All drive bearings shall be of the antifriction type, ball or roller bearings. All bearings within the drive, including the output shaft bearings, shall have a minimum L-10 bearing life of 80,000 hours when operating at the calculated brake motor horsepower at the designed speed. Documentation supporting bearing lives, upon request, will be supplied with the submittal package.

D. The mixing shaft shall be coupled to the gearbox output shaft by means of a rigid flanged coupling. Mating coupling faces shall have a male/female piloted connection for accurate concentricity and shall not require match marking for alignment.

The mixing shaft and coupling half shall be constructed of 316SS material. The shaft shall be designed such that the maximum combined stress does not exceed 9,000 psi under maximum operating loads. It shall be of overhung design – the use of underwater steady bearings is not permitted. Shaft straightness and rigid coupling squareness must be such that the maximum total indicated runout at the lower end of the shaft does not exceed 0.125" for every 10' of shafting, as measured when turning over by hand.

E. The electric motor shall be rated for continuous duty in a humid corrosive environment. Insulation shall be class F with a Class B temperature rise at 40o C ambient at 1.0 service factor. Service factor will be 1.15.

The motor shall be squirrel cage induction type for operation on 3 PH, 60 HZ, 460 V. Synchronous speeds shall be 1800/1200 or 900 rpm. All motors shall be designed with applicable IEEE, NEMA, and ANSI standards.

Motors shall be connected to the reducer's input shaft with an easily accessible torsionally resilient flexible coupling protected by an OSHA coupling guard.

F. The spare parts to be supplied are one set of bearings, oil seals and gaskets per mixer

2.04 FLOCCULATOR AND FLASH MIXER VFD REQUIREMENTS

A. Provide industrial-rated variable frequency drives (VFDs) as specified herein. Drives shall be complete, factory-assembled units including power conversion components, control electronics, operator interface, cooling system, and enclosure. Drives shall be suitable for operation of three-phase AC induction motors in municipal water treatment and general industrial service.

B. Drives shall be designed, manufactured, and tested in accordance with the latest applicable standards of:

1. UL and cUL Listing
2. CE Marking
3. RoHS Compliance

C. PERFORMANCE REQUIREMENTS

1. Control Methods:
    a. Open-loop current vector control
    b. V/f control
    c. Permanent magnet open-loop vector control
    d. Simple closed-loop speed control capability
    e. B. Output Frequency Range:
    0 to 400 Hz minimum.
    f. C. Overload Capacity:
    g. Heavy Duty: 150 percent rated current for 60 seconds
    h. Normal Duty: 120 percent rated current for 60 seconds
2. Braking:
    a. DC injection braking with standard internal braking transistor
    b. Intelligent high-slip braking providing increased braking torque over standard DC injection
3. Maintenance Monitoring**:**
    Drive shall include internal elapsed-time monitoring for critical components including cooling fans and DC bus capacitors.
4. Operator Interface:

a. Integral LED or LCD operator interface with minimum 5-digit display

b. Optional remote-mount operator interface available

D. Drives shall be furnished in NEMA Type 4X / IP66 enclosures suitable for outdoor, washdown, and corrosive environments. Enclosures shall be corrosion-resistant and suitable for installation in water treatment plants, pump stations, and chemical process areas without additional protective housings. Drives shall comply with UL Type 4X / 12 environmental ratings.

E. INPUTS, OUTPUTS, AND COMMUNICATIONS

1. Standard I/O:

a. Minimum seven (7) multifunction digital inputs

b. Minimum two (2) multifunction analog inputs

c. Pulse input

d. Hard-wired base-block safety input

e. Relay outputs and transistor outputs

f. Analog voltage output (0–10 V) or pulse output

F. Standard Communication:
RS-422/485 Modbus RTU communication at minimum 115 kbps.

G. Optional Communication Protocols:

1. DeviceNet

2. EtherNet/IP

3. EtherCAT

4. Modbus TCP/IP

5. PROFIBUS-DP

6. PROFINET

7. MECHATROLINK-II or III

PART 3 – EXECUTION

3.01 MANUFACTURER'S FIELD SERVICES

A. The services of a qualified manufacturer's technical representative shall be provided following Site Visits Schedule:

Service	Number of Trips	Number of Days/Trip
Startup, Testing, and Field Training	1	2
Services after Startup	1	1

3.02 INSTALLATION

A. Install flocculators, flash mixer and VFDs in strict accordance with manufacturer's recommendations

3.03 FIELD TESTING

A. Field testing shall include the following Field Testing Schedule:

	Flocculators and Flash Mixer
Field Performance Testing	Yes
Vibration Testing	Yes

B. Field Performance tests shall be performed on all new flocculators and flash mixer. The Contractor shall furnish the services of a qualified factory-trained representative who shall inspect and be present for startup and testing. The designated individual(s) shall have at least ten (10) years of experience in the installation and startup of water and wastewater systems of similar size and scope. The qualifications and experience for the designated individual(s) shall be provided for review and approval.

C. After the equipment manufacturer's representative has determined the equipment installation is correct and the equipment is ready for continuous use, Contractor shall test operate the flocculators and flash mixer under actual operating conditions.

END OF SECTION