## ILLINOIS ENVIRONMENTAL PROTECTION AGENCY WATER POLLUTION CONTROL PERMIT

**LOG NUMBERS:** 2020-65740 **BUREAU ID:** W0434120001

PERMIT NO.: 2021-AB-65740

FINAL PLANS, SPECIFICATIONS, APPLICATION AND SUPPORTING DOCUMENTS
PREPARED BY: Strand Associates, Inc.

DATE ISSUED: May 26, 2021

SUBJECT: BARTLETT - STP Improvements Loan No. L170034

PERMITTEE TO CONSTRUCT AND OWN

Village of Bartlett 1150 Bittersweet Drive Bartlett, Illinois 60103

Permit is hereby granted to the above designated permittee(s) to construct and/or operate water pollution control facilities described as follows:

The project includes: new mechanical bar screens, screening wash presses, stack tray grit removal tank and channels, new grit pump and washer, new diversion channel for primary influent and excess flow, replace equipment, weirs and baffles at existing primary clarifiers, remove telescopic valves and existing sludge pumps, and replace with new motor operated valves (MOV) and two positive displacement pumps each rated at 150 gpm with variable frequency drives in a new primary sludge pumping building, replace existing sludge and scum piping between primary clarifiers and aerobic digesters with glass-lined piping, replace the existing aeration basin piping and fine bubble diffusers in all four aeration basins, four new 52,500 gallon anaerobic tanks will be constructed and the existing aeration tanks will be converted into two 136,700 gallon anoxic tanks, two 136,700 gallon aerobic tanks, and four 150,300 gallon aerobic tanks (1,358,000 gallons total) configured in an A2/O (anaerobic/anoxic/oxic) biological phosphorus removal process with the ability to also operate in a return activated sludge fermentation/sidestream enhanced biological phosphorus removal process, replace underground aeration piping between basins and control building, replace existing aeration blowers with three rotary helical screw blowers each rated at 2,000 scfm, construct new diversion chamber for flow splitting of mixed liquor to the final clarifiers, repurpose the intermediate clarifiers as final clarifiers and replace all equipment, drives, weirs and baffles, provide new yard piping to route secondary effluent from the final clarifiers to the new filter building, expand the return activated sludge (RAS) pump station to provide pumps and wet wells for each final clarifier, install a SCADA-controlled MOV to pump waste activated sludge (WAS) to the aerobic digesters, replace all weirs and baffles in flocculating clarifier. repurpose the existing final clarifiers to excess flow clarifiers and replace weirs and baffles, replace existing deep-bed sand filters with three disc filters each with surface area of 645.6 ft2 and three 260 gpm backwash pumps in a new filter building, install six banks with 108 lamps for ultraviolet disinfection, new chemical phosphorus removal with a 4.100 gallon storage tank and three chemical feed pumps, and replace aeration piping and diffusers in all eight digesters, and three rotary helical screw blowers each rated at 2,770 scfm. The following will be demolished: existing drum screen, grit removal facilities, existing intermediate pumping station superstructure and nitrification towers, flow equalization tank, channels and equipment, filter building chlorine contact tanks and disinfection equipment.

## Page 1 of 2

THE STANDARD CONDITIONS OF ISSUANCE INDICATED ON THE REVERSE SIDE MUST BE COMPLIED WITH IN FULL. READ ALL CONDITIONS CAREFULLY.

BDF:JAR:2020-65740

**DIVISION OF WATER POLLUTION CONTROL** 

cc: EPA-Des Plaines FOS Strand Associates, Inc. Records - Municipal IFAS - Heidi Allen

Brant D. Fleming, P.E.

Manager, Municipal Unit, Permit Section

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Upon completion of the above listed facilities, the above referenced treatment plant will be rated at the following capacities:

Design Average Flow (DAF) = 3.679 MGD
Design Maximum Flow (DMF) = 9.2 MGD
Organic Loading = 5144 Lbs/day
Solids Loading = 5951 Lbs/day

This Permit is issued subject to the following Special Condition(s). If such Special Condition(s) require(s) additional or revised facilities, satisfactory engineering plan documents must be submitted to this Agency for review and approval for issuance of a Supplemental Permit.

SPECIAL CONDITION 1: The operational portion of this permit shall be governed by NPDES Permit No. IL0027618.

SPECIAL CONDITION 2: The Permittee to Construct shall be responsible for obtaining an NPDES Storm Water Permit prior to initiating construction if the construction activities associated with this project will result in the disturbance of one (1) or more acres total land area.

An NPDES Storm Water Permit may be obtained by submitting a properly completed Notice of Intent (NOI) form by certified mail to the Agency's Division of Water Pollution Control - Permit Section.

SPECIAL CONDITION 3: This permit also covers all necessary appurtenances not specifically mentioned herein but detailed in the specifications and/or the design drawings.

SPECIAL CONDITION 4: The issuance of this permit is not to be construed as an approval of the "Water Pollution Control Revolving Fund" loan program requirements.