

Alexander A. Strack, PE

Water Resource Engineer III



EDUCATION

B.S., Civil Engineering,
Marquette University, 2020

Joined Firm in 2022

Years of Experience: 5

CERTIFICATIONS

Licensed Professional
Engineer: Illinois

Alexander is a Water Resources Engineer with experience designing and preparing plans, specifications, construction estimates, and construction contract documents for stormwater projects. He specializes in urban stream restoration and riparian corridor improvements. Alex has attended multiple conferences and workshops on stormwater management, stream restoration, and geomorphology to hone his skills. With five years of experience, he has worked on design and modeling for several stream restoration projects and has submitted applications to various grant programs to secure funding. Alex especially enjoys engaging with stakeholders who will benefit from completed projects.

REPRESENTATIVE PROJECTS

Fox Waterway Agency, IL (Lake/McHenry Counties)

Trinski's Island Restoration Project

Engineer-of-Record for a multi-year project underway to benefit the multitude of stakeholders of the Fox River Chain O' Lakes. Through partnerships with the Illinois Department of Natural Resources and the Fox Waterway Agency, the project proposes to recover a significant amount of lakebed sediment as the basis of island recovery in Pistakee Lake. Other objectives include habitat restoration for a host of amphibian and fish species, perches for raptors, reestablishment of native plants, invasive species control, and conveyance and navigational improvements to benefit both recreation and the environment. Additional duties include project validation of "no rise" flood conditions using hydraulic modeling, USACE no-wetland-impact design, and island dewatering and wave/wake impact considerations. Alex coordinates the design lead and the development of design plans.

Glenview, IL

Longvalley Streambank Stabilization

Project Engineer responsible for riffle sizing and design; flow and velocity calculations; and design plans, specifications, estimate of cost, and permitting for the streambank stabilization. The project will be bid with two alternates – one for round stone used for stabilization and one for riprap. Permits were necessary from the Chicago Metropolitan Water Reclamation District (MWRD), the Illinois Department of Natural Resources–Office of Water Resources (IDNR-OWR), the Illinois Environmental Protection Agency (IEPA), and the U.S. Army Corps of Engineers (USACE).

Bloomington, IL

Goose Creek and Sugar Creek Improvements

Project Engineer responsible for onsite inventory and documentation of existing stream conditions of multiple reaches of Goose Creek and branches of Sugar Creek. The work included development of concept plans and estimates of cost for restoration and stabilization for channel and streambanks. The project also involved preparing grant applications for several identified restoration projects. Grant funding has been secured for at least two of these projects, with many more pending agency review.

Bloomington, IL

Sunnyside Park Sustainability Initiative

Stormwater Engineer responsible for the development of a stormwater design to achieve stormwater standards set by the City and SITES certification. CivilStorm software was used to prepare alternative stormwater models to compute flow reductions from existing to proposed condition

Lake in the Hills, IL

Crystal Creek Reach 7 Restoration

Project Engineer responsible for on-site inventory and documentation of existing site conditions, and preparing plans for implementation of the design. The work included collecting field measurements and making qualitative assessments to identify areas of concern and potential improvements. The project also consisted of a complete design for channel re-meandering, stabilization treatments, native planting and restoration, and erosion control.

Lockport, IL

Milne Creek Preliminary Design

Design Engineer responsible for the design of the stabilization and improvement of multiple reaches of Milne Creek in Lockport. The work included grant application, preliminary design, permitting, and final design. It also included an alternatives analysis of several stabilization treatments to address erosion and concerns at residential properties adjacent to the creek. Approximately 1,300 linear feet of stream has been designed for stabilization, with additional reaches downstream anticipated. The stream improvements included stone toe stabilization, gabion baskets, native plantings, J-hooks, and retaining wall replacement.

STORMWATER DESIGN

Lockport, IL

163rd Street Drainage Improvements

Stormwater Engineer responsible for site walkthrough and analysis of existing drainage concerns. Performed storm sewer analysis and design to improve drainage along an arterial right-of-way that included inlet capacity improvements, swale design, and sidewalk replacement. Developed design plans, specifications, and estimate of cost for improvements to stormwater conveyance and restoration of right-of-way.

Union, IL

4215 N Union Road Floodplain

Stormwater Engineer responsible for the development of a compensatory storage plan to address a Stormwater Management Ordinance violation notice from McHenry County for fill placed in the floodplain and bring the site into compliance with the Ordinance. Prepared a site grading plan that met the Ordinance requirements while also meeting the client's needs for keeping fill near the basement opening to prevent river water from entering the basement.