

MICHAEL SCOFIELD

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EXPERIENCE

Structural Engineer III, HBK Engineering, Chicago, IL Aug 2024 - Present

- Lead design and rehabilitation of bridges, roadways, and municipal structures for large capital projects.
- Coordinate with planners, geotechnical engineers, construction teams, and city staff to move projects from concept to final plans.
- Design steel and concrete bridge elements, retaining walls, culverts, and foundations using standard state and national design codes.
- Build and run structural models in SAP2000, STAAD, and MIDAS Civil to check strength, deflection, seismic loads, wind loads, and fatigue.
- Prepare design sheets, calculations, and recommendations for DOT reviewers and city boards.
- Provide guidance on construction staging, foundation options, and cost-efficient design choices.

Structural Engineer II, Burns & McDonnell, Chicago, IL Nov 2018 - Jul 2024

- Designed bridges, retaining walls, transit structures, and municipal buildings, completing multiple projects that were built in Illinois and Indiana.
- Worked on steel girder design, concrete detailing, bearings, expansion joints, and seismic detailing to reduce material and construction costs.
- Built 3D models to study load paths, construction stages, thermal effects, and long-term behavior.
- Wrote technical reports and design alternatives for bridge replacements and repairs, helping improve safety and reduce long-term maintenance.

Structural Engineer I, Sargent & Lundy, Chicago, IL Sep 2014 - Oct 2018

- Supported the city's structural asset management program, covering inspections and upkeep for more than 300 bridges and facilities.
- Helped update inspection procedures, maintenance schedules, and load ratings, reducing critical issues across the network.
- Assisted with compliance reviews and DOT audits and provided input for annual capital planning decisions.
- Performed field inspections, failure investigations, and emergency assessments to reduce safety risks and speed up repairs.

Structural Engineering Intern, HNTB, Chicago, IL May 2013 - Aug 2014

- Supported bridge and roadway design teams by preparing plan sheets, quantities, and basic calculations under senior engineer guidance.
- Assisted with field inspections, documenting bridge conditions, crack patterns, and drainage issues for inspection reports.
- Helped review shop drawings and contractor RFIs for small rehabilitation projects.
- Organized structural data, load ratings, and plan revisions to keep project files updated for DOT reviews.

EDUCATION

BSCE, Loyola University Chicago, Department of Civil Engineering

May 2015

SKILLS

- **Design:** SAP2000, STAAD, MIDAS Civil, Civil 3D, AutoCAD, RISA, AASHTOWare, Revit
- **Analysis:** Finite Element Modeling, Load Rating (LRFR), Structural Reliability, Python, MATLAB