



JOEL A. PAULSEN, P.E.
SENIOR MANAGING CONSULTANT

japaulsen@engsys.com

Mr. Paulsen is a seasoned Civil Engineer with over 20 years of comprehensive experience in managing large-scale infrastructure projects in the public and private sectors. Mr. Paulsen is recognized for pioneering the Metro Flood Diversion Authority, overseeing the first and largest split-delivery P3 project in collaboration with the U.S. Army Corps of Engineers, which brought about innovative flood control solutions and substantial cost and time savings. He demonstrated success in securing significant federal and state funding, achieving record-low financing rates, and negotiating pivotal legal settlements to drive project progress.

Mr. Paulsen is an expert in sustainable practice integration, such as implementing biofuel usage in construction, which marked a national first. He is highly adept in technical design and project management across various civil engineering disciplines including water distribution, sanitary systems, transportation, and storm sewer management. Mr. Paulsen's career is distinguished by his commitment to achieving project objectives while ensuring environmental compliance and community benefit, earning multiple national and international accolades for project excellence and leadership.

Areas of Specialization

- Airport Design
- Floodplain Management
- Geometric Highway Design
- Hydraulic and Hydrologic Modeling
- Municipal Wastewater Systems
- Municipal Water Systems
- Pavement Design
- Storm Water Design
- Wastewater Treatment
- Water Treatment

Education

B.S., Civil Engineering, North Dakota State University, 2005

Licenses/Certifications

- State of Minnesota P.E. License 47964
- State of North Dakota P.E. License 6633
- Certified FEMA Floodplain Manager
- Certified Traffic Control Supervisor, American Traffic Safety Services Association



Certified Storm Water Pollution Prevention Plan Designer, University of Minnesota

Minnesota Department of Transportation Certified Technician:

- Aggregate Production
- Bituminous Street
- Concrete Field Inspection 1 & 2
- Grading & Base

Certified by the American Concrete Institute

- Aggregate Testing
- Cement Testing
- Field Concrete Testing
- Laboratory Concrete Testing
- Concrete Construction Inspection

Bentley Software Certificate

- Productive MicroStation
- Geopak 1, Geopak 2, Geopak Drainage

Professional Affiliations/Honors

City Engineers Association of Minnesota

Associate Member

National Society of Professional Engineers

Member, Minnesota and North Dakota

American Society of Flood Plain Managers

Member, Minnesota

American Society of Civil Engineers

Associate Member

Engineers Without Borders

President and Founder of Red River Valley Professional Chapter

Professional Mentor for the North Dakota State University Chapter

Liaison for the University of North Dakota Chapter

Former North Dakota State Representative to the Midwest Steering Committee

Order of the Engineer

Member



Project Finance International

America's P3 Deal of the Year

Proximo

North America Water Deal of the Year Award

Ames Construction (USACE Contractor)

Dan W. Renfro Partnering Award

IJ Global

Water Deal of the Year in North America

Public Sector Project of the Year in North America

Environmental Finance

Green Social and Sustainability Loan of the Year

International Finance Law Review

America's Award for Public Finance

U.S. Army Core of Engineers (USACE)

Project Delivery Team of the Year

P3 Awards

Public Sector Promoter/Procurer of the Year

Metro Flood Diversion Authority (MFDA)

P3 Awards

Best Financial Structure

Agentis Capital

P3 Awards

Legal Advisor of the Year

Ashurst

P3 Awards

Future Leader of the Year (Runner Up)

Bond Buyer

P3 Deal of the Year

P3 Public Financing Award

IJ Global

ESG Climate Adaptation Award

National Academy of Construction

Recognition of Special Achievement Award

Associated General Contractors of North Dakota

2023 Safety Award (ASN Constructors)

ND Ready Mix Gold Star Award (City of Fargo) for Drain 27



Prairie Business Magazine
40 under 40 Recipient

Positions Held

Engineering Systems Inc., Plymouth, Minnesota

Senior Managing Consultant, 2024 – Present

Paulsen Engineering, Moorhead, Minnesota

President, 2019 – Present

Metro Flood Diversion Authority, Fargo, North Dakota

Executive Director, 2019 – 2024

Moorhead Public Service, Moorhead, Minnesota

Board Member, 2019 – Present

Engineers Without Borders

President, 2014 – Present

Stantec, Fargo, North Dakota

Regional Manager, 2018 – 2019

City of Moorhead, Moorhead, Minnesota

City Council Member, 2016 – 2019

Bolton & Menk, Fargo, North Dakota

Senior Project Manager, 2015 – 2018

Process Development Group

Kadrmass Lee & Jackson, Moorhead, Minnesota

Engineer IV, Office Manager, 2012 – 2015

Engineer II, Project Manager, 2009 – 2012

Engineer I, Project Engineer, 2005 – 2009

Charitable Contributions Committee

Honorable Mention Community Involvement

Process Innovation Team

United Rentals Inc., West Fargo, North Dakota

Traffic Control Supervisor, Traffic Control Technician, 2001 – 2005

Publications/Presentations

Testimony: ND Legislature – Feb. 1, 2021 at Bismarck, ND

Conference: International ROW Association – Jun. 7-9, 2021 at San Antonio, TX

Leadership Academy: Missouri River Energy Services – Sep. 15-17, 2021 at Sioux Falls, SD

Meeting with Whitehouse concerning IIJA funding – Oct. 27-30, 2021 at Washington D.C.
Conference: P3 Government Conference – Dec. 6-8, 2021 at Washington, D.C.
Conference: Red River Basin Commission Conference - Jan. 11-13, 2022 at Grand Forks
Award Presentation: P3 of Americas Award Reception - Mar. 3, 2022 at New York City
Speaking Engagement: NDSU Contracts & Specs Class - Mar. 21, 2022 at NDSU
Speaking Engagement: WTOC Update - Mar. 22, 2022 at Bismarck, ND
Conference: P3 Water Conference – Apr. 6-8, 2022 at San Diego, CA
Networking: FMWF Chamber Voices of Vision - Apr. 21, 2022 at Fargo, ND
Testimony: ND Legislative Briefing - Apr. 26, 2022 at Fargo
Award Presentation: Project Finance International – May 7-10, 2022 at London, U.K.
Conference: American Floodplain Manager – May 16-20, 2022 at Orlando, FL
Conference: Proximo Financing Americas Infrastructure – May 23-25, 2022 at Nashville, TN
Conference: Minnesota Municipal Utilities – Aug. 22-24, 2022 at Brainerd, MN
Conference: Association of State Floodplain Managers – Sept. 13-16 at St. Paul, MN
Speaking Engagement: FM Realtor Presentation - Sept. 28, 2022 at Fargo
Award Presentation: P3 Awards – Oct. 10-12 2022 at New York City, NY
Conference: International ROW Association – Oct. 21-26, 2022 at San Antonio, TX
Speaking Engagement: P3 Government Conference – Dec. 1-3, 2022 at Washington D.C.
Award Presentation: Bond Buyer – Dec. 22, 2022 at New York City, NY
Speaking Engagement: City of Moorhead Presentation - Jan. 23, 2023 at Moorhead, MN
Conference: American Water Summit - Jan. 26, 2023 at Los Angeles Airport Marriott
Speaking Engagement: Chamber's Leadership program - Feb. 17, 2023 at Local
Speaking Engagement: P3 Conference – Mar. 6-8, 2023 Dallas, TX
Speaking Engagement: ND Legislative Update - Mar. 15, 2023 at Bismarck Capitol
Advisor: City of Fargo Growth Plan – Mar. 23, 2023 – Present, Fargo, ND
Conference: American Floodplain Manager – May 7-12, 2023 at Raleigh, NC
Conference: American Public Power Association – Jun. 18-21, 2023 Seattle, WA
Testimony: Senate EPW Committee – Jul. 20, 2023 at Washington D.C.
Conference: Minnesota Municipal Utilities Association – Aug. 22-24, 2023 Duluth, MN
Testimony: ND Legislative Water Topics – Sep. 12, 2023 at Bismarck Capitol
Speaking Engagement: P3 Water Conference – Sep. 21, 2023 – San Deigo, CA
Speaking Engagement: Boston Storm Surge Working Group – Oct. 13, 2023 at Boston, MA
ND Water Conference: Program update – Nov. 8, 2023 at Bismarck, ND



Joel A. Paulsen, P.E.
July 2024

Advisory Board: P3 Conference – Mar. 11-13, 2024 at Dallas, TX

Opening Plenary Speaker: P3 Conference – Mar. 11, 2024 at Dallas, TX

Speaking Engagement: UND Civil Engineering - Apr. 8, 2024 at UND Campus, Grand Forks, ND